AIR POLLUTION CONTROL DISTRICT OF JEFFERSON COUNTY, KENTUCKY

TITLE V OPERATING PERMIT

Permit No.: 156-97-TV | Plant ID: 0060

Effective Date: April 18, 2001 | Expiration Date: April 18, 2006

UTM Northing: 4210.10 | UTM Easting: 595.80

SIC: 3241 | NAICS: 32731 | AFS: 00060

Permission is hereby given by the Air Pollution Control District of Jefferson County to operate equipment located at:

Kosmos Cement Company - Louisville Plant
15301 Dixie Highway
Louisville, Kentucky 40272

in accordance with the permit application on file with the District and under the conditions in the permit. This permit and the authorization to operate the emission units listed shall expire on midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Applicant for Permit: Kosmos Cement Company

Responsible Official: Stuart Tomlinson

Title of Responsible Official: Plant Manager

Date Application Received: 21 April 1997

Date Application Administratively Complete: 11 June 1997

Date Public Notice Given: 22 October 2000

_____ _____

Reviewing Engineer (89) | Air Pollution Control Officer

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Abbreviations and Acronyms

AC - Additional Condition
AFS - AIRS Facility Subsystem
AIRS - Aerometric Information Retrieval System
APCD - Air Pollution Control District
ASL - Adjusted Significant Level
atm - Atmosphere
BACT - Best Available Control Technology
Btu - British Thermal Unit
EC - Degrees Centigrade
CEMS - Continuous Emission Monitoring System
CAAA - Clean Air Act Amendments (15 November 1990)
cf - Cubic foot
DOE - District Only Enforceable
EF - Degrees Fahrenheit
gal - Gallon
HAP - Hazardous Air Pollutant
Hg - Mercury
hr - hour
lbs - Pounds
l - Liter
MACT - Maximum Achievable Control Technology
m - Meter
mg - Milligram
mm - Millimeter
MM - Million
MOCS - Management of Change System
NAICS - North American Industry Classification System
NSR - New Source Review
NO_x - Nitrogen oxides
NSPS - New Source Performance Standards
PM - Particulate Matter
PM_{10} - Particulate matter less than 10 microns
ppm - Parts per million
PSD - Prevention of Significant Deterioration
PMP - Preventive Maintenance Plan
psia - Pounds per square inch absolute
RACT - Reasonably Available Control Technology
SIC - Standard Industrial Classification
SIP - State Implementation Plan
SO_2 - Sulfur dioxide
TAL - Threshold Ambient Limit
TAP - Toxic Air Pollutant
tpy - Tons per year
VOC - Volatile Organic Compound
UTM - Universal Transverse Mercator

Preamble

Title V of the Clean Air Act Amendments of 1990 required EPA to create an operating permit program for implementation by state or local air permitting authorities. The purposes of this program are (1) to require an affected company to assume full responsibility for demonstrating compliance with applicable regulations; (2) to capture all of the regulatory information pertaining to an affected company in a single document; and (3) to make permits more consistent with each other.

A company is subject to the Title V program if it meets any of several criteria related to the nature or amount of its emissions. The Title V operating permit specifies what the affected company is, how it may operate, what its applicable regulations are, how it will demonstrate compliance, and what is required if compliance is not achieved. In Jefferson County, Kentucky, the Air Pollution Control District (APCDJC) is responsible for issuing Title V permits to affected companies and enforcing local regulations and delegated federal and state regulations. EPA may enforce federal regulations but not "District Only Enforceable Regulations".

Title V offers the public an opportunity to review and comment on a company's draft permit. It is intended to help the public understand the company's compliance responsibility under the Clean Air Act. Additionally, the Title V process provides a mechanism to incorporate new applicable requirements. Such requirements are available to the public for review and comment before they are adopted.

Title V Permit general conditions define requirements which are generally applicable to all Title V companies under the jurisdiction of APCDJC. This avoids repeating these requirements in every section of the company's Title V permit. Company-specific conditions augment the general conditions as necessary; these appear in the sections of the permit addressing individual emission units or emission points.

The general conditions include references to regulatory requirements that may not currently apply to the company, but which provide guidance for potential changes at the company or in the regulations during the life of the permit. Such requirements may become applicable if the company makes certain modifications or a new applicable requirement is adopted.

When the applicability of a section or subpart of a regulation is unclear, a clarifying citation will be made in the company's Title V permit at the emission unit/point level. Comments may also be added at the emission unit/point level to give further clarification or explanation.

The source's Title V permit may include a list of "insignificant activities," which are activities or processes falling into the general categories defined in Regulation 2.02, Section 2, and not associated with a specific operation or process for which there is a specific regulation. Activities so identified may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply and must be included in the Title V operating permit. No periodic monitoring shall be required for facilities designated as insignificant activities.

General Conditions

1. **Compliance** - The owner or operator shall comply with all applicable requirements and with all terms and conditions of this permit. Any noncompliance shall constitute a violation of the Act, State and District regulations and shall cause the source to be subject to enforcement actions including, but not limited to, the termination, revocation and reissuance, or revision of this permit, or denial of a permit application to renew this permit. Notwithstanding any other provision in the Jefferson County portion of the Kentucky SIP approved by EPA, any credible evidence may be used for the purpose of establishing whether the owner or operator is in compliance with, has violated, or is in violation of any such plan. (Regulation 2.16, sections 4.1.3, 4.1.13.1 and 4.1.13.7)

2. **Compliance Certification** - The owner or operator shall certify, annually or more frequently if required in applicable regulations, compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall meet the requirements of Regulation 2.16, sections 3.5.11 and 4.3.5. The owner or operator shall submit the annual compliance certification directly to the following address as well as to the District, as set forth in Regulation 2.16, section 4.3.5.4:

   US EPA - Region IV
   Air Enforcement Branch
   Atlanta Federal Center
   61 Forsyth Street
   Atlanta, GA 30303-8960

3. **Compliance Schedule** - A compliance schedule must meet the requirements of Regulation 2.16, section 3.5.9.5. The owner or operator shall submit a schedule of compliance for each emission unit that is not in compliance with all applicable requirements. A schedule of compliance shall be supplemental to, and shall not condone noncompliance with, the applicable requirements on which it is based. For each schedule of compliance, the owner or operator shall submit certified progress reports at least semi-annually, or at a more frequent period if specified in an applicable requirement or by the District in accordance with Regulation 2.16 section 4.3.4. The progress reports shall contain:

   a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when activities, milestones, or compliance were achieved.

   b. An explanation of why dates in the schedule of compliance were not or will not be met, and preventive or corrective measures adopted.

4. **Duty to Supplement or Correct Application** - If the owner or operator fails to submit relevant facts or has submitted incorrect information in the permit application, it shall, upon discovery of the occurrence, promptly submit the supplementary facts or corrected information in accordance with Regulation 2.16, section 3.4.

5. **Emergency Provision**

a. An emergency shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emission limitations. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An emergency occurred and that the owner or operator can identify the cause of the emergency.

ii. The permitted facility was at the time being properly operated.

iii. During the period of the emergency the owner or operator expeditiously took all reasonable steps, consistent with safe operating practices, to minimize levels of emissions that exceeded the emission standards or other requirements in this permit.

iv. The owner or operator submitted notice meeting the requirements of Regulation 1.07 of the time when emissions limitations were exceeded because of the emergency. This notice must fulfill the requirement of this condition, and must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.

b. In an enforcement proceeding, the owner or operator seeking to establish the occurrence of an emergency has the burden of proof.

c. This condition is in addition to any emergency or upset provision contained in an applicable requirement.

(Regulation 2.16, sections 4.7.1 through 4.7.4)

6. **Emission Fees Payment Requirements** - The owner or operator shall pay annual emission fees in accordance with Regulation 2.08. Failure to pay the emissions fees when due shall constitute a violation of District Regulations. Such failure is subject to penalties and an increase in the fee of an additional 5% per month up to a maximum of 25% of the original amount due. In addition, failure to pay emissions fees within 60 days of the due date shall automatically suspend this permit to operate until the fee is paid or a schedule for payment acceptable to the District has been established. (Regulation 2.08, section 1.3)

7. **Emission Offset Requirements** - The owner or operator shall comply with the requirements of Regulation 2.04.

8. **Enforceability Requirements** - Except for the conditions that are specifically designated as "District Only Enforceable Conditions", all terms and conditions of this permit, including any provisions designed to limit a source's potential to emit, are enforceable by EPA and citizens as specified under the Act. (Regulation 2.16, sections 4.2.1 and 4.2.2)

9. **Enforcement Action Defense**

   a. It shall not be a defense for the owner or operator in an enforcement action that it would have been necessary for the owner or operator to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

   b. The owner or operator's failure to halt or reduce activity may be a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operation.

   (Regulation 2.16, sections 4.1.13.2 and 4.1.13.3)

10. **Hazardous Air Pollutants and Sources Categories** - The owner or operator shall comply with the applicable requirements of Regulations 5.02 and 5.14.

11. **Information Requests** - The owner or operator shall furnish to the District, within a reasonable time, information requested in writing by the District, to determine whether cause exists for revising, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The owner or operator shall also furnish, upon request, copies of records required to be kept by this permit. (Regulation 2.16, section 4.1.13.6) If information is submitted to the District under a claim of confidentiality, the source shall submit a copy of the confidential information directly to EPA. (Regulation 2.07, section 10.2)

12. **Insignificant Activities -** The owner or operator shall notify the District in a timely manner of any proposed change to an insignificant activity that would require a permit revision. (Regulation 2.16, section 5)

13. **Inspection and Entry** - Upon presentation of credentials and other documents as required by law, the owner or operator shall allow the District or an authorized representative to perform the following during reasonable hours:

   a. Enter the premises to inspect any emissions-related activity or records required in this permit.

   b. Have access to and copy records required by this permit.

   c. Inspect facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required by this permit.

   d. Sample or monitor substances or parameters to assure compliance with this permit or any applicable requirements.
   (Regulation 2.16, section 4.3.2)

14. **Monitoring and Related Record keeping and Reporting Requirements** - The owner or operator shall comply with the requirements of Regulation 2.16, section 4.1.9. The owner or operator shall submit all required monitoring reports at least once every six months, unless

more frequent reporting is required by an applicable requirement. The reporting period shall be January 1st through June 30th and July 1st through December 31st of each calendar year. All reports shall be postmarked by the 60th day following the end of each reporting period. If surrogate operating parameters are monitored and recorded in lieu of emission monitoring, then an exceedance of multiple parameters may be deemed a single violation by the District for enforcement purposes.

15. **Off-permit Documents** - Any applicable requirements, including emission limitations, control technology requirements, or work practice standards, contained in an off-permit document cannot be changed without undergoing the permit revision procedures in Regulation 2.16, Section 5. (Regulation 2.16, section 4.1.5)

16. **Operational Flexibility** - The owner or operator may make changes without permit revision in accordance with Regulation 2.16, section 5.8.

17. **Permit Amendments (Administrative)** - This permit can be administratively amended by the District in accordance with Regulation 2.16, sections 2.3 and 5.4.

18. **Permit Application Submittal** - The owner or operator shall submit a timely and complete application for permit renewal or significant revision. If the owner or operator submits a timely and complete application then the owner or operator's failure to have a permit is not a violation until the District takes formal action on this permit application. This protection shall cease to apply if, subsequent to completeness determination, the owner or operator fails to submit, by the deadline specified in writing by the District, additional information required to process the application as required by Regulation 2.16, sections 3 and 5.2.

19. **Permit Duration** - This permit is issued for a fixed term of 5 years, in accordance with Regulation 2.16, section 4.1.8.3.

20. **Permit Renewal, Expiration and Application** - Permit renewal, expiration and application procedural requirements shall be in accordance with Regulation 2.16, sections 4.1.8.2 and 5.3. This permit may only be renewed in accordance with section 5.3.

21. **Permit Revisions** - No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. (Regulation 2.16, section 4.1.16)

22. **Permit Revision Procedures (Minor)** - Except as provided in 40 CFR Part 72, the Acid Rain Program, this permit may be revised in accordance with Regulation 2.16, section 5.5.

23. **Permit Revision Procedures (Significant)** - A source seeking to make a significant permit revision shall meet all the Title V requirements for permit applications, issuance and renewal, in accordance with Regulation 2.16, section 5.7, and all other applicable District Regulations.

24. **Permit Revocation and Termination by the District** - The District may terminate this permit only upon written request of the owner or operator. The District may revoke a permit

for cause, in accordance with Regulation 2.16, section 5.11.1.1 through 5.11.1.5. For purposes of Section 5, substantial or unresolved noncompliance includes, but is not limited to:

a. Knowingly operating process or air pollution control equipment in a manner not allowed by an applicable requirement or that results in excess emissions of a regulated air pollutant that would endanger the public or the environment.

b. Failure or neglect to furnish information, analyses, plans, or specifications required by the District.

c. Knowingly making any false statement in any permit application.

d. Noncompliance with Regulation 1.07, section 4.2; or

e. Noncompliance with KRS Chapter 77.

25. **Permit Shield** - The permit shield shall apply in accordance with Regulation 2.16, section 4.6.1.

26. **Prevention of Significant Deterioration of Air Quality** - The owner or operator shall comply with the requirements of Regulation 2.05.

27. **Property Rights** - This permit shall not convey property rights of any sort or grant exclusive privileges in accordance with Regulation 2.16, section 4.1.13.5.

28. **Public Participation** - Except for modifications qualifying for administrative permit amendments or minor permit revision procedures, all permit proceedings shall meet the requirements of Regulations 2.07, Section 1; and 2.16, sections 5.1.1.2 and 5.5.4.

29. **Reopening For Cause** - This permit shall be reopened and revised by the District in accordance with Regulation 2.16 section 5.9.

30. **Reopening for Cause by EPA** - This permit may be revised, revoked and reissued or terminated for cause by EPA in accordance with Regulation 2.16 section 5.10.

31. **Risk Management Plan (112(r))** - For each process subject to Section 112(r) of the Act, the owner or operator shall comply with 40 CFR Part 68 and Regulation 5.15.

32. **Severability Clause** - The conditions of this permit are severable. Therefore, if any condition of this permit, or the application of any condition of this permit to any specific circumstance, is determined to be invalid, the application of the condition in question to other circumstances, as well as the remainder of this permit's conditions, shall not be affected. (Regulation 2.16, section 4.1.12)

33. **Stack Height Considerations** - The owner or operator shall comply with the requirements of Regulation 2.10.

34. **Startups, Shutdowns, and Malfunctions Requirements** - The owner or operator shall comply with the requirements of Regulation 1.07.

35. **Submittal of Reports, Data, Notifications, and Applications**

a. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit as set forth in Regulation 2.16 sections 3.1, 3.4, 3.5, 4.1.13.6, 5.8.5 and 5.11.7 shall be submitted to:

Air Pollution Control District of Jefferson County
850 Barret Ave
Louisville, KY 40204-1745

b. Documents which are specifically required to be submitted to EPA as set forth in Regulation 2.16 sections 3.3, and 5.8.5 shall be mailed to EPA at the following address:

US EPA - Region IV
APTMD - 12th floor
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-3104

36. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following regulations:

FEDERALLY ENFORCEABLE REGULATIONS	
Regulation	**Title**
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance with Emission Standards and Maintenance Requirements
1.06	Source Self-Monitoring and Reporting
1.07	Emissions During Startups, Shutdowns, Malfunctions, and Emergencies
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application

FEDERALLY ENFORCEABLE REGULATIONS	
Regulation	**Title**
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Permit Requirements - Non-Title V Construction and Operating Permits and Demolition/Renovation Permits
2.07	Public Notification for Title V, PSD, and Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.16	Title V Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
5.01	General Provisions (for Hazardous Air Pollutants)
5.03	Potential Hazardous Emissions
6.01	General Provisions (for *Existing Affected Facilities*)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (for *New Affected Facilities*)

DISTRICT ONLY ENFORCEABLE REGULATIONS	
Regulation	**Title**
1.12	Control of Nuisances
1.13	Control of Objectionable Odors in the Ambient Air
2.08	Emissions Fees, Permit Fees, Permit Renewal Procedures, and Additional Program Fees
8.03	Commuter Vehicle Testing Requirements

Emission Unit U-1 Description: Barge Unloading & Transfer (limestone transfer from barge to conveying systems)

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
6.09	Standards of Performance for Existing Process Operations	1.2
40 CFR 60 Subpart OOO	Standards of Performance for Nonmetallic mineral Processing Plants	Sections: 60.670, 60.671, 60.672, 60.675

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.72, 2, 3, 4, 5

Allowable Emissions:

Pollutant	Limit/Standard
Opacity	10% (40 CFR 60.672(b))

Components:

Emission Point	Description	Control ID
E-1	Unloading hopper (K-100)	fugitive emissions, no control
E-2	Conveyor Belt (K-101)	fugitive emissions, no control
E-3	Conveyor Belt (K-102)	fugitive emissions, no control
E-4	Conveyor Belt (K-103)	fugitive emissions, no control
E-5	Conveyor Belt (K-104)	fugitive emissions, no control
E-6	Conveyor Belt (K-137)	fugitive emissions, no control
E-8	Conveyor Belt (K-140)	fugitive emissions, no control
E-9	Conveyor Belt (K-148)	fugitive emissions, no control

Additional Conditions

1. **Standards** (40 CFR 60, Subpart OOO)

Opacity

The owner or operator shall not allow or cause the opacity from this emission unit to exceed 10%; (40 CFR 60.672 (b))

2. Monitoring (Regulation 2.16, sections 4.1.9.1.2.)

Opacity

a. To demonstrate compliance with the opacity standard, the owner or operator shall conduct a daily one-minute visible emissions survey, during normal operation and daylight hours, of the PM emission points identified as E-2 through E-6, E-8 and E-9. No more than four Emission Points shall be observed simultaneously.

b. For Emission Points without observed visible emissions during twelve consecutive operating weeks, the owner or operator may elect to conduct a weekly one-minute visible emission survey, during normal operation and daylight hours. No more than four Emission Points shall be observed simultaneously.

c. For Emission Points without observed visible emissions during twelve consecutive operating weeks as per 2.b, the owner or operator may elect to conduct a monthly one-minute visible emission survey, during normal operation and daylight hours. No more than four Emission Points shall be observed simultaneously.

d. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 for stack emissions or Method 22 for fugitive emissions within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted as indicated in 2.a.

d. No visible emission survey needs to be performed if an Emission Point is not being operated during a given day, week or month (as appropriate).

3. Record Keeping (Regulation 2.16, section 4.1.9.2)

Opacity

The owner or operator shall maintain records of:

i. results of all visible emission surveys and tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. Reporting (Regulation 2.16, section. 4.1.9.3)

Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

a. Emission Unit ID number and Emission Point ID number or Stack ID number

b. The beginning and ending date of the reporting period

c. The date, time, and result of each Method 22 conducted (or a negative declaration if none)

d. Description of any corrective action taken pursuant to Additional Condition 2.c.

Comment

Emission Point E-1, does not qualify as a regulated facility under 40 CFR 60, Subpart OOO. It is not a storage bin. Because of the date of installation, it would be regulated by 6.09, however, there is no control device or stack associated with this emission point, therefore it is exempt from all emissions standards. Emission Point E-1 is not subject to monitoring, recordkeeping or reporting requirements. However, it is incumbent upon the owner or operator to assure compliance of this emission point with nuisance regulation 1.14 as stated in Regulation 6.09, section 1.2.

Emission Unit U-2 Description: Limestone Handling (screening and transfer)

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart OOO	Standards of Performance for Nonmetallic Mineral Processing Plants	Sections: 60.670, 60.671, 60.672, 60.675

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.72, 2, 3, 4, 5

Allowable Emissions:

Pollutant	Limit/Standard
Opacity	10% (40 CFR 60.672(b))
Opacity	7% (40 CFR 60.672(a)(2))
PM	0.05 g/dscm (40 CFR 60.672(a)(1))

Components:

Emission Point	Description	Control ID
E-11	Feeder	fugitive emissions, no control
E-12	Conveyor Belt (K-149)	baghouse C-1 (K-162)
E-13	screens (K-151 & K-152)	baghouse C-1 (K-162)

Additional Conditions

1. Standards (40 CFR 60, Subpart OOO)

a. **Opacity**

i. The owner or operator shall not allow or cause the opacity from this emission unit to exceed 10%; (40 CFR 60.672 (b) for E-11)

ii. The owner or operator shall not allow the discharge of visible emissions to exceed 7%; (40 CFR 60.672 (a)(2) for E-12 and E-13 at the C-1 baghouse stack S-1)

b. **PM**

The owner or operator shall not cause to be discharged into the atmosphere, any stack emissions which contain particulate matter in excess of 0.05 g/dscm. (40 CFR 60.672(a)(1))

2. Monitoring (Regulation 2.16, sections 4.1.9.1.2.)

a. **Opacity**

i. To demonstrate compliance with the opacity standard, the owner or operator shall conduct a daily one-minute visible emissions survey, during normal operation and daylight hours, of the PM emission points identified as E-12 and E-13. No more than four Emission Points shall be observed simultaneously.

ii. For Emission Points without observed visible emissions during twelve consecutive operating weeks, the owner or operator may elect to conduct a weekly one-minute visible emission survey, during normal operation and daylight hours. No more than four Emission Points shall be observed simultaneously.

iii.. For Emission Points without observed visible emissions during twelve consecutive operating weeks as per 2.a.ii, the owner or operator may elect to conduct a monthly one-minute visible emission survey, during normal operation and daylight hours. No more than four Emission Points shall be observed simultaneously.

iv. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 for stack emissions or Method 22 for fugitive emissions within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all

practicable steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted as indicated in 2.a.i.

iv. No visible emission survey needs to be performed if an Emission Point is not being operated during a given day, week or month (as appropriate).

b. **PM**

Monitoring requirements for Control Device C-1 are specified in Emission Unit U-3, additional condition 2.b.

3. Record Keeping (Regulation 2.16, section 4.1.9.2)

a. **Opacity**

The owner or operator shall maintain records of:

i. results of all visible emission surveys and tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

b. **PM**

Recordkeeping requirements, see Emission Unit U-3, additional condition 3.b.

4. Reporting (Regulation 2.16, section. 4.1.9.3)

a. **Opacity**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

iv. Description of any corrective action taken pursuant to Additional Condition 2.a.iii.

b. **PM**

Compliance reporting requirements, see Emission Unit U-3, additional condition 4.b

Comment

Applicability of 40 CFR 60, Subpart F and 40 CFR 60, Subpart OOO is based on the EPA guidance memo dated 12 June 1995.

Emission Unit U-3 Description: Raw Material Crushing

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart OOO	Standards of Performance for Nonmetallic Mineral Processing Plants	Sections: 60.670, 60.671, 60.672, 60.675

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.72, 2, 3, 4, 5

Allowable Emissions:

Pollutant	Limit/Standard
Opacity	7% (40 CFR 60.672(a)(2))
PM	0.05 g/dscm (40 CFR 60.672(a)(1))

Components:

Emission Point	Description	Control ID
E-14	Secondary Crusher (K-156)	baghouse C-1 (K-162)
E-15	Belt Conveyor (K-157)	baghouse C-1 (K-162)
E-16	Belt Conveyor (K-159)	baghouse C-1 (K-162)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-1	S-1	Bag House (K-162)	See AC 2.a & 2.b	N/A	See AC 2.a & 2.b	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

The owner or operator shall not allow the discharge of visible emissions to exceed 7%; (40 CFR 60.672 (a)(2) for E-14, E-15 and E-16 at the C-1 baghouse stack S-1)

b. **PM**

The owner or operator shall not cause to be discharged into the atmosphere, any stack emissions which contain particulate matter in excess of 0.05 g/dscm. (40 CFR 60.672 (a)(1)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

a. **Opacity**

i. To demonstrate compliance with the opacity standard, the owner or operator shall conduct a daily one-minute visible emissions survey, during normal operation and daylight hours, of the PM emission points E-14, E-15 and E-16 and stack S-1. No more than four Emission Points shall be observed simultaneously.

ii. For Emission Points without observed visible emissions during twelve consecutive operating weeks, the owner or operator may elect to conduct a weekly one-minute visible emission survey, during normal operation and daylight hours. No more than four Emission Points shall be observed simultaneously.

iii. For Emission Points without observed visible emissions during twelve consecutive operating weeks as per 2.a.ii, the owner or operator may elect to conduct a monthly one-minute visible emission survey, during normal operation and daylight hours. No more than four Emission Points shall be observed simultaneously.

iv. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 for stack emissions or Method 22 for fugitive emissions within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted as indicated in 2.a.i.

iv. No visible emission survey needs to be performed if an Emission Point is not being operated during a given day, week or month (as appropriate).

b. **PM**

The owner or operator shall inspect C-1 baghouse for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collector for signs of dust every two weeks.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

a. **Opacity**

The owner or operator shall maintain records of:

i. results of all visible emission surveys and tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

b. **PM**

The owner or operator shall maintain records of all inspections and maintenance performed for C-1 baghouse. These records shall include:

i. results of all inspections

ii. the date and time of each inspection

iii. the name of the person conducting the inspection

iv. any repairs or maintenance performed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

a. **Opacity**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

iv. Description of any corrective action taken pursuant to Additional Condition 2.a.iii.

b. **PM**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for PM:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. Description of any corrective action taken pursuant to Additional Condition 3.b.iv.

Comment

Applicability of 40 CFR 60, Subpart F and 40 CFR 60, Subpart OOO is based on the EPA guidance memo dated 12 June 1995.

Emission Unit U-4 Description: Limestone Storage/ Reclaim

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c))

Components:

Emission Point	Description	Control ID
E-17	Six Weigh Feeders (K-307 thru K-312)	fugitive emissions, no control
E-18	Belt Conveyor (K-313)	fugitive emissions, no control
E-19	Bin (K-314)	baghouse C-2 (K-332)
E-20	Feeder (K-320)	baghouse C-2 (K-332)
E-21	3 Existing Raw Feed Weigh Feeders	baghouse C-3 (K-401-2)
E-22	3 Existing Raw Feed Weigh Feeders	baghouse C-4 (K-401-4)
E-23	Belt Conveyor (K-401)	baghouse C-5 (K-402)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-2	S-2	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-3	S-3	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-4	S-4	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-5	S-5	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

Opacity

The owner or operator shall not allow or cause the opacity from the baghouses C-2, C-3, C-4 and C-5 to equal or exceed 10%. The owner or operator shall not allow or cause the fugitive emissions from Emission Points E-17 and E-18 to equal or exceed 10% opacity. (40 CFR 60.62 (c))

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

Opacity

a. The owner or operator shall conduct a monthly 1-minute visible emissions test on Emission Points E-17 through E-23 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

b. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

c. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

d. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

e. The owner or operator shall inspect C-2 , C-3, C-4 and C-5 baghouses for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collectors for signs of dust every two weeks.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity

The owner or operator shall maintain records of:

i. results of all Method 22 and Method 9 tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted that exceeded the standard (or a negative declaration if none were performed)

iv. Description of any corrective action taken pursuant to Additional Condition 2.d.

Comment

With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-5 Description: Raw material crushing and drying (Clay)

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 60 Subpart OOO	Standards of Performance for Nonmetallic Mineral Processing Plants	Sections: 60.670, 60.671, 60.672, 60.675
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1347, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355
6.09	Standards of Performance for Existing Process Operations	1.2
6.10	Standard of Performance for Existing Process Gas Streams	Sections: 1, 2, 4, 6.2

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c))
SO_2	2000 ppm by volume at 0% oxygen (Regulation 6.10, Section 4)

Components:

Emission Point	Description	Control ID
E-24	Hopper (K-201)	fugitive emissions, no control
E-25	Feeder (K-202)	fugitive emissions, no control
E-26	Belt conveyor (K-209)	baghouse C-6 (K-239)
E-27	Crusher (K-203)	baghouse C-6 (K-239)
E-28	Belt Conveyor (K-204)	baghouse C-6 (K-239)
E-29	Belt Conveyor (K-205)	baghouse C-6 (K-239)
E-30	Dryer (K-206) 65 MM Btu direct fired furnace	Baghouses C-7 & C-8 (K-216 and K-231)
E-31	Elevator (K-207)	fugitive emissions, no control
E-32	Screen (K-210)	Baghouse C-6 (K-239)
E-33	Elevator (K-213)	fugitive emissions, no control
E-34	Clay Silo (K-317)	Baghouse C-9 (K-334)
E-35	Clay Silo (K-315)	Baghouse C-9 (K-334)
E-36	Clay Silo (K-316)	Baghouse C-9 (K-334)
E-37	Raw Material Silo (K-318)	Baghouse C-9 (K-334)
E-38	Dust Silo (K-319)	baghouse C-10 (K-335)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-6	S-6	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual
C-7	S-7	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual
C-8	S-7	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual
C-9	S-8	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual
C-10	S-9	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

The owner or operator shall not allow or cause the opacity from the baghouses C-2, C-6, C-7, C-8, C-9 and C-10 to equal or exceed 10%. The owner or operator shall not allow or cause the fugitive emissions from Emission Points E-25, E-31 and E-33 to equal or exceed 10% opacity. (40 CFR 60.62 (c))

b. **SO_2**

The owner or operator shall not allow or cause the emissions of SO_2 from Emission Point E-30 to exceed 2000 ppm by volume at O% oxygen. (Regulation 6.10, Section 4)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

a. **Opacity**

i. The owner or operator shall conduct a monthly 1-minute visible emissions test on Emission Points E-25 through E-38 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

ii. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iii. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iv. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

v. The owner or operator shall inspect C-6 , C-7, C-8, C-9 and C-10 baghouses for the following items:

A) Verify fan is running and belts are on, daily.

B) Verify dampers are working properly daily.

C) Verify cleaning mechanism is working properly every two weeks

D) Replace all worn bags as needed.

E) Verify bags are clean and not filled with dust every two weeks

F) Verify dust removal system is working properly every two weeks, and

G) Inspect area around collectors for signs of dust every two weeks.

b. **SO_2**

i. The owner or operator shall combust fuel oil with a sulfur content no more than 0.5% by weight.

ii. The owner or operator shall comply with Additional Condition 2.f) for Emission Unit U-13, when combusting "On-Spec", "Off-Spec" and waste oils.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

a. **Opacity**

The owner or operator shall maintain records of:

i. results of all Method 22 and Method 9 tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

b. **SO_2**

The owner or operator shall maintain records of:

i. When and for what duration were fuels other than natural gas combusted in the unit.

ii. Fuel oil vendor certification that the fuel oil meets the 0.5% by weight sulfur content.

iii. Comply with Additional Condition 3.e.i for Emission Unit U-13.

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

a. **Opacity**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted that exceeded the standard (or a negative declaration if none were performed)

iv. Description of any corrective action taken pursuant to Additional Condition 2.a.iv.

b. **SO_2**

i. No compliance reporting is required when the unit combusts natural gas.

ii. No compliance reporting is required when the unit combusts No. 2 fuel oil.

iii. The owner or operator shall report semi-annually, by exception, when Additional Condition 2.b was not complied with. If no exceptions, then a negative declaration shall be supplied in the report.

Comment

1. Emission Point E-24, does not qualify as a regulated facility under 40 CFR 60, Subpart OOO. It is not a storage bin. Because of the date of installation, it would be regulated by 6.09, however, there is no control device or stack associated with this emission point, therefore it is exempt from all emissions standards. Emission Point E-24 is not subject to monitoring, recordkeeping or reporting requirements. However, it is incumbent upon the owner or operator to assure compliance of this emission point with nuisance regulation 1.14 as stated in Regulation 6.09, section 1.2.

2. With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-6 Description: Proportioning Silos

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c))

Components:

Emission Point	Description	Control ID
E-39	Feeder (K-500)	Baghouse C-2 (K-332)
E-40	Feeder (K-329)	Baghouse C-2 (K-332)
E-41	Feeder (K-327)	Baghouse C-2 (K-332)
E-42	Feeder (K-323)	Baghouse C-2 (K-332)
E-43	Feeder (K-325)	Baghouse C-2 (K-332)
E-44	Belt Conveyor (K-401)	Baghouse C-2 (K-332)
E-45	Belt Conveyor (K-520)	Baghouses C-11 (K-522)
E-46	Belt Conveyor (K-521)	Baghouses C-11 (K-522)
E-47	Belt Conveyor (K-519)	Baghouses C-11 (K-522)
E-48	Hopper	Baghouses C-11 (K-522)
E-49	Feeder (K-517)	Baghouses C-11 (K-522)
E-50	Elevator (K-518)	Baghouses C-11 (K-522)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-2	S-2	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-11	S-10	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

Opacity

The owner or operator shall not allow or cause the opacity from the baghouses C-2 and C-11 to equal or exceed 10%. (40 CFR 60.62 (c))

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

Opacity

a. The owner or operator shall conduct a monthly 1-minute visible emissions test on Emission Points E-39 through E-50 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

b. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

c. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

d. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

e. The owner or operator shall inspect C-2 and C-11 baghouses for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collectors for signs of dust every two weeks.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity

The owner or operator shall maintain records of:

i. results of all Method 22 and Method 9 tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted that exceeded the standard (or a negative declaration if none were performed)

iv. Description of any corrective action taken pursuant to Additional Condition 2.d.

Comment

With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-7 Description: Raw Mill "D"

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1347, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355
6.10	Standard of Performance for Existing Process Gas Streams	Sections: 1, 2, 4, 6.2

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c) and 40 CFR 63.1347)
SO_2	2000 ppm by volume at 0% oxygen (Regulation 6.10, Section 4)

Components:

Emission Point	Description	Control ID
E-51	Feeder (K-524)	fugitive emissions, no control
E-81	Mill "D" (K-526)	Baghouse C-12 and C-13 (K-541 and K-545)
E-53	Elevator (K-536)	fugitive emissions, no control
E-81	Separator (K-538)	Baghouse C-13 (K-545)
E-81	Furnace, 150 MMBtu direct fired furnace (is used only when kiln is down)	Baghouse C-13 (K-545)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-12	S-11	Cyclone	See AC 2.a	N/A	See AC 2.a	semi-annual
C-13	S-11	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

i. The owner or operator shall not allow or cause the opacity from baghouse C-13 to equal or exceed 10%. The owner or operator shall not allow or cause the fugitive emissions from Emission Points E-51 and E-53 to equal or exceed 10%. (40 CFR 60.62 (c))

ii. The owner or operator shall not allow or cause the opacity from the raw mill and its baghouse C-13 to equal or exceed 10%. This is applicable only when the kiln is down and the furnace is used.

Normal operation of this Emission Unit is that all emissions go through the kiln and receives heated air from the kiln. (40 CFR 63.1347)

b. **SO_2**

The owner or operator shall not allow or cause the emissions of SO_2 from Emission Point E-30 at stack S-11 to exceed 2000 ppm by volume at 0% oxygen. (Regulation 6.10, Section 4)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

a. **Opacity**

i. Stack S-11, for Emission point E-81, is subject to the COM requirements in Emission Unit U-13, additional condition 2.a.v.

ii. The owner or operator shall conduct a monthly 1-minute visible emissions test on Emission Points E-51 and E-53 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

iii. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iv. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis.

and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

v. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

vi. The owner or operator shall inspect C-12 and C-13 baghouses for the following items:

A). Verify fan is running and belts are on, daily.

B) Verify dampers are working properly daily.

C) Verify cleaning mechanism is working properly every two weeks

D) Replace all worn bags as needed.

E) Verify bags are clean and not filled with dust every two weeks

F) Verify dust removal system is working properly every two weeks, and

G). Inspect area around collector for signs of dust every two weeks.

b. **SO_2**

i. The owner or operator shall combust fuel oil with a sulfur content no more than 0.5% by weight.

ii. The owner or operator shall comply with Additional Condition 2.f) for Emission Unit U-13, when combusting "On-Spec", "Off-Spec" and waste oils.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

a. **Opacity**

i. The owner or operator shall, for Stack S-11, maintain records as per additional condition 3.a.ii for Emission Unit U-13.

ii. The owner or operator shall, for Emission Points E-51 and E-53 maintain records of:

A. results of all Method 22 and Method 9 tests performed

B. the date and time of the survey

C. the name of the person conducting the survey or test

D. whether visible emissions were observed

E. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

b. **SO_2**

The owner or operator shall maintain records of:

i. Fuel oil vendor certification that the fuel oil meets the 0.5% by weight sulfur content.

ii. Comply with Additional Condition 3.e.i for Emission Unit U-13.

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

a. **Opacity**

i. The owner or operator shall, for Stack S-11, report as per additional condition 4.ii for Emission Unit U-13.

ii. The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

A. Emission Unit ID number and Emission Point ID number or Stack ID number

B. The beginning and ending date of the reporting period

C. The date, time, and result of each Method 9 or Method 22 conducted that exceeded the standard (or a negative declaration if none were performed)

D. Description of any corrective action taken pursuant to Additional Condition 2.a.

b. **SO_2**

i. No compliance reporting is required when the unit combusts natural gas.

ii. No compliance reporting is required when the unit combusts No. 2 fuel oil.

iii. The owner or operator shall report semi-annually, by exception, when Additional Condition 2.b was not complied with. If no exceptions, then a negative declaration shall be supplied in the report.

Comment

1. With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

2. Control device C-12 is a set of cyclones that are vented to Baghouse C-13, thus monitoring is relegated to the vent stack S-11, there is no point of emissions for C-12.

Emission Unit U-8 Description: Raw Mill "A"

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1347, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355
6.10	Standard of Performance for Existing Process Gas Streams	Sections: 1, 2, 4, 6.2

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c), 40 CFR 63.1347 and 40 CFR 63.1348)
SO_2	2000 ppm by volume at O% oxygen (Regulation 6.10, Section 4)

Components:

Emission Point	Description	Control ID
E-56	Feeder (K-407)	fugitive emissions, no control
E-57	Elevator (K-408)	Baghouse C-14 (K-421)
E-58	Belt Conveyor (K-409)	Baghouse C-15 (K-418)
E-59	Separator (K-411)	Baghouse C-16 (K-424)
E-60	Mill “A” (K-413)	Baghouse C-17 (K-415)
E-59	Furnace, 20 MMBtu direct fired furnace	Baghouse C-16 (K-424)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-14	S-12	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual
C-15	S-13	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual
C-16	S-14	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual
C-17	S-15	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

The owner or operator shall not allow or cause the opacity from the baghouses C-14, C-15, C-16 and C-17 to equal or exceed 10%. The owner or operator shall not allow or cause the fugitive emissions from Emission Point E-56 to equal or exceed 10%.(40 CFR 60.62 (c), 40 CFR 63.1347 and 40 CFR 63.1348)

b. **SO_2**

The owner or operator shall not allow or cause the emissions of SO_2 from Emission Point E-59 to exceed 2000 ppm by volume at 0% oxygen. (Regulation 6.10, Section 4)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

a. **Opacity**

i. The owner or operator shall conduct a monthly 1-minute visible emissions test on Emission Points E-56 through E-58 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

A. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

B. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

C. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

ii. The owner or operator shall, for Emission Points E-59 and E-60, monitor opacity by conducting daily visible emissions observations of the mill sweep

and air separator particulate matter control devices, in accordance with procedures of 40 CFR 60, Appendix A, Method 22. The Method 22 test shall be conducted while the emission unit is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 visible emissions test, the owner or operator shall:

A. Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan;

B. Conduct a Method 22 or Method 9 test after the corrective action is completed.
   1) If no visible emissions are observed, return to monitoring described above.
   2) If visible emissions are still observed, the owner or operator shall, within 24 hours of the end of the Method 22 test in which visible emissions were first observed, conduct a visible emissions test of each stack from which visible emissions were observed in accordance with procedures of 40 CFR 60, Appendix A, Method 9. The duration of the Method 9 shall be 30 minutes.

iii. The owner or operator shall test Stack S-15 once every five years using Method 9. The test shall occur by no later than the end of the first quarter of the fourth year of the permit.

iv. The owner or operator shall inspect C-14, C-15, C-16 and C-17 baghouses for the following items:

A) Verify fan is running and belts are on, daily.

B) Verify dampers are working properly daily.

C) Verify cleaning mechanism is working properly every two weeks

D) Replace all worn bags as needed.

E) Verify bags are clean and not filled with dust every two weeks

F) Verify dust removal system is working properly every two weeks, and

G) Inspect area around collectors for signs of dust every two weeks.

b. **SO_2**

i. The owner or operator shall combust fuel oil with a sulfur content no more than 0.5% by weight.

ii. The owner or operator shall comply with Additional Condition 2.f) for Emission Unit U-13, when combusting "On-Spec", "Off-Spec" and waste oils.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

a. **Opacity**

The owner or operator shall maintain records of:

i. results of all Method 22 and Method 9 tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

b. **SO_2**

The owner or operator shall maintain records of:

i. Fuel oil vendor certification that the fuel oil meets the 0.5% by weight sulfur content.

ii. Comply with Additional Condition 3.e.i for Emission Unit U-13.

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

a. **Opacity**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted that exceeded the standard (or a negative declaration if none were performed)

iv. Description of any corrective action taken pursuant to Additional Condition 2.a.

b. **SO_2**

i. No compliance reporting is required when the unit combusts natural gas.

ii. No compliance reporting is required when the unit combusts No. 2 fuel oil.

iii. The owner or operator shall report semi-annually, by exception, when Additional Condition 2.b was not complied with. If no exceptions, then a negative declaration shall be supplied in the report.

Comment

With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-9 Description: Raw Mill "B"

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1347, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355
6.10	Standard of Performance for Existing Process Gas Streams	Sections: 1, 2, 4, 6.2

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c), 40 CFR 63.1347 and 40 CFR 63.1348)
SO_2	2000 ppm by volume at 0% oxygen (Regulation 6.10, Section 4)

Components:

Emission Point	Description	Control ID
E-61	Feeder (K-435)	fugitive emissions, no control
E-62	Elevator (K-436)	Baghouse C-18 (K-454)
E-63	Belt Conveyor (K-427)	Baghouse C-19 (K-448)
E-64	Separator (K-429)	Baghouse C-20 (K-451)
E-65	Mill “B” (K-441)	Baghouse C-21 (K-445)
E-64	Furnace, 20 MMBtu direct fired furnace	Baghouse C-20 (K-451)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-18	S-16	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual
C-19	S-17	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual
C-20	S-18	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual
C-21	S-19	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

The owner or operator shall not allow or cause the opacity from the baghouses C-14, C-15, C-16 and C-17 to equal or exceed 10%. The owner or operator shall not allow or cause the fugitive emissions from Emission Point E-56 to equal or exceed 10%.(40 CFR 60.62 (c), 40 CFR 63.1347 and 40 CFR 63.1348)

b. **SO_2**

The owner or operator shall not allow or cause the emissions of SO_2 from Emission Point E-64 to exceed 2000 ppm by volume at 0% oxygen. (Regulation 6.10, Section 4)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

a. **Opacity**

i. The owner or operator shall conduct a monthly 1-minute visible emissions test on Emission Points E-61 through E-63 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

A. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

B. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

C. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

ii. The owner or operator shall, for Emission Points E-64 and E-65, monitor opacity by conducting daily visible emissions observations of the mill sweep

and air separator particulate matter control devices, in accordance with procedures of 40 CFR 60, Appendix A, Method 22. The Method 22 test shall be conducted while the emission unit is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 visible emissions test, the owner or operator shall:

A. Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan;

B. Conduct a Method 22 or Method 9 test after the corrective action is completed.
   1) If no visible emissions are observed, return to monitoring described above.
   2) If visible emissions are still observed, the owner or operator shall, within 24 hours of the end of the Method 22 test in which visible emissions were first observed, conduct a visible emissions test of each stack from which visible emissions were observed in accordance with procedures of 40 CFR 60, Appendix A, Method 9. The duration of the Method 9 shall be 30 minutes.

iii. The owner or operator shall test Stack S-19 once every five years using Method 9. The test shall occur by no later than the end of the first quarter of the fourth year of the permit.

iv. The owner or operator shall inspect C-18, C-19, C-20 and C-21 baghouses for the following items:

A) Verify fan is running and belts are on, daily.

B) Verify dampers are working properly daily.

C) Verify cleaning mechanism is working properly every two weeks

D) Replace all worn bags as needed.

F) Verify bags are clean and not filled with dust every two weeks

G) Verify dust removal system is working properly every two weeks, and

H) Inspect area around collectors for signs of dust every two weeks.

b. **SO_2**

i. The owner or operator shall combust fuel oil with a sulfur content no more than 0.5% by weight.

ii. The owner or operator shall comply with Additional Condition 2.f) for Emission Unit U-13, when combusting "On-Spec", "Off-Spec" and waste oils.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

a. **Opacity**

The owner or operator shall maintain records of:

i. results of all Method 22 and Method 9 tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

b. **SO_2**

The owner or operator shall maintain records of:

i. Fuel oil vendor certification that the fuel oil meets the 0.5% by weight sulfur content.

ii. Comply with Additional Condition 3.e.i for Emission Unit U-13.

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

a. **Opacity**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted that exceeded the standard (or a negative declaration if none were performed)

iv. Description of any corrective action taken pursuant to Additional Condition 2.a.

b. **SO_2**

i. No compliance reporting is required when the unit combusts natural gas.

ii. No compliance reporting is required when the unit combusts No. 2 fuel oil.

iii. The owner or operator shall report semi-annually, by exception, when Additional Condition 2.b was not complied with. If no exceptions, then a negative declaration shall be supplied in the report.

Comment

With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-10 Description: Raw Mill "C"

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1347, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355
6.10	Standard of Performance for Existing Process Gas Streams	Sections: 1, 2, 4, 6.2

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c), 40 CFR 63.1347 and 40 CFR 63.1348)
SO_2	2000 ppm by volume at 0% oxygen (Regulation 6.10, Section 4)

Components:

Emission Point	Description	Control ID
E-67	Belt Conveyor (K-501)	fugitive emissions, no control
E-68	Belt Conveyor (K-513)	Baghouse C-22 (K-516)
E-69	Crusher (K-512)	Baghouse C-22 (K-516)
E-70	Elevator (K-502)	Baghouse C-22 (K-516)
E-71	Separator (K-503)	Baghouse C-23 (K-505)
E-72	Mill “C” (K-504)	Baghouse C-22 (K-516)
E-73	Pump (K-509)	Baghouse C-22 (K-516)
E-71	Furnace (K-464), 6 MMBtu direct fired furnace	Baghouse C-23 (K-505)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-22	S-20	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual
C-23	S-21	Baghouse	See AC 2.a	N/A	See AC 2.a	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

The owner or operator shall not allow or cause the opacity from the baghouses C-22 and C-23 to equal or exceed 10%. The owner or operator shall not allow or cause the fugitive emissions from Emission Point E-67 to equal or exceed 10%.(40 CFR 60.62 (c), 40 CFR 63.1347 and 40 CFR 63.1348)

b. **SO_2**

The owner or operator shall not allow or cause the emissions of SO_2 from Emission Point E-71 to exceed 2000 ppm by volume at 0% oxygen. (Regulation 6.10, Section 4)

2. **Monitoring Requirements** (Regulation 2.16, sections 4.1.9.1.2.)

a. **Opacity**

i. The owner or operator shall conduct a monthly 1-minute visible emissions test on Emission Points E-67 through E-70 and E-73 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

A. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

B. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

C. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

ii. The owner or operator shall, for Emission Points E-71 and E-72, monitor opacity by conducting daily visible emissions observations of the mill sweep

and air separator particulate matter control devices, in accordance with procedures of 40 CFR 60, Appendix A, Method 22. The Method 22 test shall be conducted while the emission unit is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 visible emissions test, the owner or operator shall:

A. Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan;

B. Conduct a Method 22 or Method 9 test after the corrective action is completed.
   1) If no visible emissions are observed, return to monitoring described above.
   2) If visible emissions are still observed, the owner or operator shall, within 24 hours of the end of the Method 22 test in which visible emissions were first observed, conduct a visible emissions test of each stack from which visible emissions were observed in accordance with procedures of 40 CFR 60, Appendix A, Method 9. The duration of the Method 9 shall be 30 minutes.

iii. The owner or operator shall test Stack S-20 once every five years using Method 9. The test shall occur by no later than the end of the first quarter of the fourth year of the permit.

iv. The owner or operator shall inspect C-22 and C-23 baghouses for the following items:

A) Verify fan is running and belts are on, daily.

B) Verify dampers are working properly daily.

C) Verify cleaning mechanism is working properly every two weeks

D) Replace all worn bags as needed.

E) Verify bags are clean and not filled with dust every two weeks

F) Verify dust removal system is working properly every two weeks, and

G) Inspect area around collectors for signs of dust every two weeks.

b. **SO_2**

i. The owner or operator shall combust fuel oil with a sulfur content no more than 0.5% by weight.

ii. The owner or operator shall comply with Additional Condition 2.f) for Emission Unit U-13, when combusting "On-Spec", "Off-Spec" and waste oils.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

a. **Opacity**

The owner or operator shall maintain records of:

i. results of all Method 22 and Method 9 tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

b. **SO_2**

The owner or operator shall maintain records of:

i. Fuel oil vendor certification that the fuel oil meets the 0.5% by weight sulfur content.

ii. Comply with Additional Condition 3.e.i for Emission Unit U-13.

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

a. **Opacity**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted that exceeded the standard (or a negative declaration if none were performed)

iv. Description of any corrective action taken pursuant to Additional Condition 2.a.

b. **SO_2**

i. No compliance reporting is required when the unit combusts natural gas.

ii. No compliance reporting is required when the unit combusts No. 2 fuel oil.

iii. The owner or operator shall report semi-annually, by exception, when Additional Condition 2.b was not complied with. If no exceptions, then a negative declaration shall be supplied in the report.

Comment

With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-11 Description: Blending Silos

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	Limit/Standard
Opacity	<10% (40 CFR 60.62(c) and 40 CFR 63.1348)

Components:

Emission Point	Description	Control ID
E-75	Blending Silos (K-602E and K-601W)	Baghouse C-24 (K-600)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-24	S-22	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

Opacity

The owner or operator shall not allow or cause the opacity from baghouse C-24 to equal or exceed 10%. (40 CFR 60.62 (c) and 40 CFR 63.1348)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

Opacity

a. The owner or operator shall conduct a monthly 1-minute visible emissions test on Emission Point E-75 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

i. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

ii. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iii. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

b. The owner or operator shall inspect C-24 baghouse for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collector for signs of dust every two weeks.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity

The owner or operator shall maintain records of:

i. results of all Method 22 and Method 9 tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted that exceeded the standard (or a negative declaration if none were performed)

iv. Description of any corrective action taken pursuant to Additional Condition 2.

Comment

With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-12 Description: Kiln Feed System

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c) and 40 CFR 63.1348)

Components:

Emission Point	Description	Control ID
E-76	Silo (South) (K-616)	Baghouse C-25 (K-618-3)
E-77	Silo (North (K-617)	Baghouse C-26 (K-618)
E-78	Belt Weight Feeder (K-624)	Baghouse C-27 (K-627)
E-79	Pump (K-625)	Baghouse C-27 (K-627)
E-80	Pump (K-626)	Baghouse C-27 (K-627)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-25	S-23	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-26	S-24	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-27	S-25	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

Opacity

The owner or operator shall not allow or cause the opacity from the baghouses C-25, C-26 and C-27 to equal or exceed 10%.(40 CFR 60.62 (c) and 40 CFR 63.1348)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

Opacity

a. The owner or operator shall conduct a monthly 1-minute visible emissions test on Emission Point E- 76 through E - 80 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

i. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

ii. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iii. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

b. The owner or operator shall inspect C-25, C-26 and C-27 baghouses for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collectors for signs of dust every two weeks.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity

The owner or operator shall maintain records of:

i. results of all Method 22 and Method 9 tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted that exceeded the standard (or a negative declaration if none were performed)

iv. Description of any corrective action taken pursuant to Additional Condition 2.

Comment

With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-13 Description: Preheater and Kiln

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1343, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355
6.42	Reasonably Available Control Technology Requirements for Major Volatile Organic Compounds and Nitrogen Oxides emitting facilities	Sections 1.2, 2, 3, 4.3, 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.12	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	Sections: 1 through 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	Limit/Standard
Opacity	20% (40 CFR 60.62(a)(2) and 40 CFR 63.1343(b)(2))
Opacity	10% (40 CFR 60.62(c) 40 CFR 63.1347 and 40 CFR 63.1348)
PM	0.30 lb per ton, feed to the kiln (dry basis) (40 CFR 60.62(a)(1) and 40 CFR 63.1343(b)(1))
PM	162.9 tons per year, (Regulation 2.05)
SO_2	165 lb/hr, 665 tons per year (Regulation 2.05)
CO	450 lb/hr, 1690 tons per year (Regulation 2.05)
NO_X	6.6 lb per ton of clinker produced (Regulation 6.42)
Dioxin & Furan	0.4 ng/dscm, TEQ corrected to 7% O_2 and , the inlet temperature @ control device of 400 ^oF or less; or 0.20 ng per dscm (8.7×10^{-11} gr per dscf) (TEQ) corrected to seven percent oxygen (see additional condition 1.f)
TAPs	< ASL (Regulation 5.12)

Components:

Emission Point	Description	Control ID
E-81	Preheater (K-900)	Baghouse C-28 (K-945)
E-82	Dust Tank (K-945-27)	Baghouse C-29 (K-945-32)
	Kiln (K-901)	

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-28	S-11	Baghouse	See AC 2.a & 2.b	N/A	See AC 2.a & 2.b	semi-annual
C-29	S-26	Baghouse	See AC 2.a & 2.b	N/A	See AC 2.a & 2.b	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

i. The owner or operator shall not allow or cause the opacity from baghouse C-28 to exceed 20%. (40 CFR 60.62 (a)(2))

ii. The owner or operator shall not allow or cause the opacity from baghouse C-29 to equal or exceed 10%.(40 CFR 60.62 (c))

b. **PM**

i. The owner or operator not cause to be discharged into the atmosphere from Stack S-11, any gases which contain particulate matter in excess of 0.15 kg per metric ton of feed (dry basis) to the kiln (0.30 lb. per ton). (40 CFR 60.62(a)(1))

ii. The owner or operator shall not exceed 162.9 tons per year of emissions to the atmosphere. (Regulation 2.05)

c. **SO_2**

The owner or operator shall not exceed 165 pound per hour and 665 tons per year of emissions to the atmosphere. (Regulation 2.05)

d. **CO**

The owner or operator shall not exceed 450 pound per hour and 1690 tons per year of emissions to the atmosphere. (Regulation 2.05)

e. **NO_X**

i. The owner or operator shall not exceed 6.6 pounds of emissions to the atmosphere per ton of clinker produced or 825 pounds per hour. (Regulation 6.42)

ii. See attached NO_X RACT Plan (Regulation 6.42)

f. **Dioxin/Furan**

The owner or operator shall no discharge into the atmosphere, any gases which contain Dioxin/Furan in excess of:

i. 0.20 ng per dscm (8.7×10^{-11} gr per dscf) (TEQ) corrected to seven percent oxygen; or

ii. 0.40 ng per dscm (1.7×10^{-10} gr per dscf) (TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet of the particulate matter control device is 204 °C (400 °F) or less.

g. **TAPs**

i. The owner or operator shall limit Toxic Air Pollutant (TAP) emissions from Emission Point E-90 to no more than the Adjusted Significance Level (ASL) based on a stack height of 98 feet and 168 hours of operation per week, unless modeling or a BACT/RACT analysis has been performed and submitted to the District, to demonstrate compliance. (Regulation 5.12)

ii. The owner or operator may combust 1.1 tons per hour of Tire Derived Fuel. (Regulation 5.12)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

a. **Opacity**

i. The owner or operator shall conduct a monthly 1-minute visible emissions test on Stack S-26 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

ii. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iii. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iv. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

v. The owner or operator shall install, calibrate, maintain and operate in accordance with 40 CFR 60.13 and 40 CFR 60, Appendix B PS-1, a continuous opacity monitoring system (COM) to measure the opacity of emissions discharged into the atmosphere from stack S-11.

vi. Should the COM fail for any reason for more than 24 hours, the owner or operator, shall, to remain in compliance, perform a Method 9 test (40 CFR 60 Appendix A) for at least 30 minutes, during each day, under normal operating conditions, on stack S-11. The COM failure shall be reported to the District as per Regulation 1.07.

b. **PM**

i. The owner or operator shall inspect C-28 and C-29 baghouses for the following items:

1) Verify fan is running and belts are on, daily.

2) Verify dampers are working properly daily.

3) Verify cleaning mechanism is working properly every two weeks

4) Replace all worn bags as needed.

5) Verify bags are clean and not filled with dust every two weeks

6) Verify dust removal system is working properly every two weeks, and

7) Inspect area around collector for signs of dust every two weeks.

ii. The owner or operator shall test Stack S-11 once every five years using Methods 1 through 5. The test shall occur by no later than the end of the first quarter of the fourth year of the permit.

c. **SO_2**

i. The owner or operator shall install, calibrate, maintain and operate in accordance with 40 CFR 60.13 and 40 CFR 60, Appendix B PS-2, a continuous emissions monitoring system (CEMS to measure the SO_2 emissions discharged into the atmosphere from stack S-11.

A) The SO_2 CEMS shall be operated and data recorded during all periods of operation of the cement kiln except for CEMS breakdowns and repairs. Data shall be recorded during calibration checks and zero and span adjustments.

B) The 1-hour average SO_2 emission rates measured by the CEMS shall be expressed in pounds per hour and shall be used to calculate the average emission rates. At least 2 data points shall be used to calculate each 1-hour average.

C) The span value for the SO_2 CEMS shall be determined so that all expected concentrations can be accurately measured and

D) The Quality Assurance Procedures in 40 CFR Part 60 Appendix F shall be followed.

E) When SO_2 emission data or flow monitor data (if a flow monitor is used) are not obtained because of CEMS breakdowns, repairs, calibration checks, or zero and span adjustments, emission data shall be obtained by using one of the following options to provide emission data for a minimum of 75% of the operating hours in each kiln operating day, in at least 22 out of 30 successive cement kiln operating days:

F) Standby monitoring systems, 40 CFR Part 60 Appendix A Method 6, Method 6A or Method 6C, or other approved reference methods, or data substitution as follows:

(1) If the missing data period is 6 hours or less, then substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data, and

(2) If the missing data period is greater than 6 hours, then substitute the greatest emission rate or flow (if a flow monitor is used) recorded during the previous 2160 quality-assured monitor operating hours at a clinker production rate that is within 10% of the current operating rate. If there are not enough data to satisfy this requirement, then substitute data from a higher clinker production rate or the maximum design flow or emission rate.

(3) The clinker production rate shall be determined and recorded during all periods of operation of the cement kiln except for breakdowns and repairs of the system used to determine the clinker production rate (raw materials weigh feeder and associated data acquisition system). Data shall be recorded during periods of calibration for the weigh feeder, which at a minimum shall be performed annually.

(4) The clinker production rate determined from monitoring the rate of raw materials input to the cement kiln shall be calculated by dividing the rate of raw materials input to the cement kiln by the current raw materials conversion factor. The raw materials conversion factor shall be determined on a

quarterly basis and this conversion factor shall be used in the calculation of the clinker production rate until the next quarterly raw materials conversion rate test is performed. The raw materials conversion rate factor shall be determined by weighing and recording the raw materials input to the cement kiln with the weigh feeder and weighing and recording the clinker output from the cement kiln with the use of a certified scale over a four- to twelve-hour period and an average calculated from those data. The current raw materials conversion factor shall be included with the quarterly emissions report.

ii. A monitoring plan shall be created and kept current for the system used to determine compliance with the pounds of SO_2 kiln limit. The most current version of the monitoring plan shall be submitted to the District and also be easily accessed by the monitoring system operation personnel.

iii Flow monitor requirements shall be pursuant Appendix B of the NO_X RACT Plan.

d. **CO**

i. The owner or operator shall install, calibrate, maintain and operate in accordance with 40 CFR 60.13 and 40 CFR 60, Appendix B PS-4 or 4A, a continuous emissions monitoring system (CEM) to measure the CO emissions discharged into the atmosphere from stack S-11.

A) The CO CEMS shall be operated and data recorded during all periods of operation of the cement kiln except for CEMS breakdowns and repairs. Data shall be recorded during calibration checks and zero and span adjustments.

B) The 1-hour average CO emission rates measured by the CEMS shall be expressed in pounds per hour and shall be used to calculate the average emission rates. At least 2 data points shall be used to calculate each 1-hour average.

C) The span value for the CO CEMS shall be determined so that all expected concentrations can be accurately measured and

D) The Quality Assurance Procedures in 40 CFR Part 60 Appendix F shall be followed.

E) When CO emission data or flow monitor data (if a flow monitor is used) are not obtained because of CEMS breakdowns, repairs, calibration checks, or zero and span adjustments, emission data shall be obtained by using one of the following options to provide emission

data for a minimum of 75% of the operating hours in each kiln operating day, in at least 22 out of 30 successive cement kiln operating days:

F) Standby monitoring systems, 40 CFR Part 60 Appendix A Method 10 or Method 10B, or other approved reference methods, or Data substitution as follows:

(1) If the missing data period is 6 hours or less, then substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data, and

(2) If the missing data period is greater than 6 hours, then substitute the greatest emission rate or flow (if a flow monitor is used) recorded during the previous 2160 quality-assured monitor operating hours at a clinker production rate that is within 10% of the current operating rate. If there are not enough data to satisfy this requirement, then substitute data from a higher clinker production rate or the maximum design flow or emission rate.

(3) The clinker production rate shall be determined and recorded during all periods of operation of the cement kiln except for breakdowns and repairs of the system used to determine the clinker production rate (raw materials weigh feeder and associated data acquisition system). Data shall be recorded during periods of calibration for the weigh feeder, which at a minimum shall be performed annually.

(4) The clinker production rate determined from monitoring the rate of raw materials input to the cement kiln shall be calculated by dividing the rate of raw materials input to the cement kiln by the current raw materials conversion factor. The raw materials conversion factor shall be determined on a quarterly basis and this conversion factor shall be used in the calculation of the clinker production rate until the next quarterly raw materials conversion rate test is performed. The raw materials conversion rate factor shall be determined by weighing and recording the raw materials input to the cement kiln with the weigh feeder and weighing and recording the clinker output from the cement kiln with the use of a certified scale over a four- to twelve-hour period and an average calculated from those data. The current raw materials conversion factor shall be included with the quarterly emissions report.

ii. A monitoring plan shall be created and kept current for the system used to determine compliance with the pounds of SO_2 kiln limit. The most current

version of the monitoring plan shall be submitted to the District and also be easily accessed by the monitoring system operation personnel.

iii Flow monitor requirements shall be pursuant Appendix B of the NO_X RACT Plan.

e. **NO_X**

i. See attached NO_X RACT Plan for compliance record keeping requirements.

ii. During RATA for the flow monitors, the audit shall be performed at the one typical high velocity.

f. **Dioxin/Furan**

The owner or operator shall test stack S-11, utilizing Method 23 of appendix A, 40 CFR part 60, twice during the duration of the permit. Testing shall be performed at the timeframes specified in 40 CFR 63.1349

g. **TAPs**

i. Source generated Waste Oil, having the characteristics specified in 2.e.ii, may be combusted as a secondary fuel in the kiln.

ii. The source may combust "On-Spec" and "Off-Spec" oils, having the following characteristics, as a secondary fuel in the kiln.

A) Heat content of 10,000 Btu or more per pound
B) Suspended solids, 15% or less by weight
C) pH of aqueous extraction between 5 and 10
D) Chlorinated solids less than 0.1% by weight
E) Ash less than 5%
F) sulfur less than 3%
G) viscosity - pumpable
H) water emulsions - no layering (emulsifiable content OK)
I) Minimum flash point - 100° F
J) Maximum allowed constituents:

Constituent	Max Allowed "On-Spec"	Max Allowed "Off -Spec"
Arsenic	5 ppm	5 ppm
Cadmium	2 ppm	2 ppm

Chromium	10 ppm	10 ppm
Lead	100 ppm	100 ppm
Total halogens	1000 ppm	4000 ppm
PCB's	2 ppm	2 ppm

iii. If waste oil, other than what was specified in 2.e.i and ii are to be used as a secondary fuel, it will be necessary that the owner or operator submit an analysis to the District for prior approval.

iv. The owner or operator shall incorporate spent coal ash as a partial clay substitute, as it deems necessary.

v. The owner or operator shall, during the combustion of TDF:

A. For products of incomplete combustion, not allow the oxygen concentration at the kiln inlet to drop below 0.5%.

B. install, maintain and properly operate an automatic TDF shutdown for:

(I) Coal mill outage and belt malfunction, with an alarm to sound at +5% coal flow rate

(II) Primary ID fan outage

(III) Baghouse ID fan outage

(IV) High baghouse temperature of 500 ^{o}F

(V) Oxygen levels below 5000 ppm for a period of 5 minutes, with an alarm to sound for oxygen levels below 10,000 ppm for a period of 15 minutes

(VI) TDF shall not be introduced to the kiln until steady state conditions, as characterized by a CO reading of 100 ppm, an O^2 reading of 0.5%, a minimum raw feed rate of 110 tons per hour are reached and maintained for five consecutive minutes.

(VII) Continuous emissions monitors, strip chart or data recorders shall be installed, calibrated, tested and operated with required reporting and recordkeeping in accordance with Regulation 7.01 and 40 CFR 60, Appendix B for the following parameters:

(1) The temperature at the second stage pre-heater

(2) The oxygen concentration in the kiln

(3) The TDF feed rate

(4) The power draw of the kiln-induced draft fan converted electronically to represent gas flow through the kiln

(5) Opacity

(6) Carbon monoxide in the kiln exhaust

(VIII) The owner or operator shall install, maintain, operate, calibrate and audit a CEM data logging system, as follows:
(1) Polling shall be at least every 5 seconds
(2) Instantaneous values can be obtained
(3) Averages shall be over the last 15 minute period
(4) 15-minute averages for the last 96 hours

(IX) The owner or operator shall develop an Operations and Maintenance Manual which details the proper O&M procedures for its personnel. A current copy of the manual shall be kept on hand at the plant at all times for review by the District. The manual shall, at a minimum, have a description of the proper procedures for operation and maintenance of:
(1) The receipt of TDF into the plant
(2) The handling of TDF prior to combustion
(3) shutdown
(4) emergency shutdown
(5) safety
(6) spill prevention and clean up
(7) recordkeeping
(8) preventative maintenance
(9) company's response to malfunction of the TFD process

C. After any disruption in the utilization of TDF, lasting more than 180 days, the owner or operator shall conduct performance tests, as specified in 40 CFR 60 Appendix A, for particulate matter (PM) and sulfur dioxide (SO_2). The requirements of Regulation 1.04 shall be followed during performance testing. These performance tests shall be conducted within 90 days after the resumption of combusting TDF. The owner or operator shall conduct any additional performance tests specified by the District. The owner or operator shall make available to the District such records as may be necessary to determine conditions during such performance tests. A written report of the results of the performance tests shall be submitted to the District within 90 days of the completion of the tests. The District shall be notified at least 45 days in advance of the starting date of these performance tests. As pre-test conference shall be held with the District, and at the District's discretion, at least 30 days before the start of the tests. The TDF feed rate shall not exceed the feed rate established during such trail burns, unless a retest is run at a higher feed rate. The District shall require a minimum of 2 performance tests for PM and SO_2. One test will establish the baseline conditions (no TDF being combusted) and the other for TDF combustion at no less than 90% of the maximum TDF combustion rate.

D. The owner or operator shall maintain all records, receipts, manifests, test results, burn rates, combustion parameters, and all other records or data required by this process for a period of five years from the

date that such records are generated. Such records or data shall be made available to the District within 3 days, upon request.

E. The owner or operator agrees to cease the combustion of TDF for non-compliance, if the District so orders.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

a. **Opacity**

i. For Stack S-26, the owner or operator shall maintain records of:

A. results of all visible emission surveys and tests performed
B. the date and time of the survey
C. the name of the person conducting the survey or test
D. whether visible emissions were observed
E. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

ii. For Stack S-11 (COM)

A. The owner or operator shall record the daily production rates and kiln feed rates.

B. The data acquisition and handling system used in recording and reporting the necessary information required for the determination of compliance with the opacity limit shall also meet all of the requirements specified in NO_x RACT Plan Appendix B.

b. **PM**

The owner or operator shall maintain records of:

i. results of all inspections and tests performed

ii. the date and time of the inspection or test

iii. the name of the person conducting the inspection or test

iv. any remedial action that occurred, as a result of inspection or test.

c. **SO_2**

The owner or operator shall keep records for each operating day including the following information:

i Calendar date,

ii The average hourly SO_2 emission rates measured, expressed as pounds per hour and tons per consecutive 12 month period.

iii The 30-day average SO_2 emission rates calculated at the end of each cement kiln operating day from the measured hourly sulfur dioxide emission rates for the preceding 30 cement kiln operating days. The average shall not include data recorded during periods of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments,

iv Identification of the cement kiln operating days when the calculated rolling 30-day average SO_2 emission rates are in excess of the SO_2 emissions standard.

v. Identification of the cement kiln operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken,

vi Identification of the times when emission data have been excluded from the calculation of average emission rates, the reasons for excluding data, and description of corrective action taken,

vii Identification of times when hourly averages have been obtained based on 40 CFR Part 60 Appendix A Method 6 or Method 6A,

viii Identification of times which the CEMS (including all monitors) was inoperative, including the date and time and the nature of the system repairs or adjustments except for zero and span checks,

ix Identification of the times when the pollutant concentration exceeded full span of the CEMS,

x . Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with 40 CFR Part 60 Appendix B Performance Specification 2,

xi Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR Part 60 Appendix F Procedure 1.

d. **CO**

The owner or operator shall keep records for each operating day including the following information:

i Calendar date,

ii The average hourly CO emission rates measured, expressed as pounds per hour and tons per consecutive 12 month period.

iii The 30-day average CO emission rates calculated at the end of each cement kiln operating day from the measured hourly carbon monoxide emission rates for the preceding 30 cement kiln operating days. The average shall not include data recorded during periods of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments,

iv Identification of the cement kiln operating days when the calculated rolling 30-day average CO emission rates are in excess of the CO emissions standard.

v. Identification of the cement kiln operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken,

vi Identification of the times when emission data have been excluded from the calculation of average emission rates, the reasons for excluding data, and description of corrective action taken,

vii Identification of times when hourly averages have been obtained based on 40 CFR Part 60 Appendix A Method 10 or Method 10B,

viii Identification of times which the CEMS (including all monitors) was inoperative, including the date and time and the nature of the system repairs or adjustments except for zero and span checks,

ix Identification of the times when the pollutant concentration exceeded full span of the CEMS,

x . Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with 40 CFR Part 60 Appendix B Performance Specification 4,

xi Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR Part 60 Appendix F Procedure 1,

e. **NO_X**

See attached NO_X RACT Plan for compliance reporting requirements.

f. **Dioxin/Furan**

The owner or operator shall maintain records per 40 CFR 63.1355.

g. **TAPs**

i. The owner or operator shall maintain, on site, all analytical test results of waste oil, “Off-Spec” oils and “On-Spec” oils.

ii. The owner or operator shall obtain and retain an elemental and TCLP for each initial shipment of spent coal ash from all suppliers.

iii. The owner or operator shall obtain and retain certification from any and all coal ash suppliers. The certificate shall contain the following:

A. Name, address and telephone number of the supplier
B. A statement form the supplier that the spent coal ash was generated from the combustion of coal, only.

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity

i. The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring report for opacity for stack S-26:

A. Emission Unit ID number and Emission Point ID number or Stack ID number

B. The beginning and ending date of the reporting period

C. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

D. Description of any corrective action taken pursuant to Additional Condition 2.a.iii.

ii. The owner or operator shall, for Stack S-11, report

A. per 40 CFR 60.65, report excess emissions as defined as all six-minute periods during which the average opacity exceeds 20%.

B. the content of this report shall comply with the requirements of 40 CFR 60.7(c).

C. not withstanding 40 CFR 60.7(c), such report shall be semi-annual.

c. **SO_2**

i. All SO_2 CEMS reporting required by 40 CFR Part 60 Appendix F is to be submitted to the District.

ii. All "estimated" data shall be reported with a clear notation that they are estimated and not obtained from a certified monitor or EPA-approved test method.

iii. The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. This report shall include the magnitude of the excess emissions and the date and time of the commencement and completion of each period of excess emissions as well as the nature and cause of each period of excess emissions and any corrective actions taken or preventive measures adopted,

iv. The owner or operator shall submit a Summary Report with every quarterly report. The Summary Report shall be in the format given in 40 CFR §60.7 Figure 1.

d. **CO**

i. All CO CEMS reporting required by 40 CFR Part 60 Appendix F is to be submitted to the District.

ii. All "estimated" data shall be reported with a clear notation that they are estimated and not obtained from a certified monitor or EPA-approved test method.

iii. The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. This report shall include the magnitude of the excess emissions and the date and time of the commencement and completion of each period of excess emissions as well as the nature and cause of each period of excess emissions and any corrective actions taken or preventive measures adopted,

iv. The owner or operator shall submit a Summary Report with every quarterly report. The Summary Report shall be in the format given in 40 CFR §60.7 Figure 1.

e. **NO_X**

See attached NO_X RACT Plan

f. **Dioxin/Furan**

The owner or operator shall report per 40 CFR 63.1354

g. **TAPs**

The owner or operator shall submit semi-annually reports to the District, certifying that the spent coal ash supplied to the company was generated from the combustion of coal only and is not contaminated with any other material.

Comment

With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-14 Description: Bypass System

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1343, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.02	Federal New Source Performance Standards Incorporated by Reference	1.16, 2, 3, 4, 5

Allowable Emissions:

Pollutant	Limit/Standard
Opacity	<10% (40 CFR 60.62(c))
Opacity	20% (40 CFR 60.62(a)(2) and 40 CFR 63.1343(b)(2))
PM	0.3 lb./ton of feed, dry basis 40 CFR 60.62(a)(1) and 40 CFR 63.1343(b)(1)

Components:

Emission Point	Description	Control ID
E-83	Spray Tower (K-937)	Cyclone C-30 and ESP C-31 (K-934 and K-938)
E-84	Elevator (K-940)	Baghouse C-32 (K-948)
E-84	Dust Bin (K-941)	Baghouse C-32 (K-948)
E-86	Truck Loadout (K-934-2)	fugitive emissions, no control

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-30 C-31	S-27	Cyclone and ESP	See AC 2	N/A	See AC 2	semi-annual
C-32	S-28	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

Opacity

a. The owner or operator shall not allow or cause the opacity from baghouse C-32 to equal or exceed 10%. The owner or operator shall not allow or cause the fugitive emissions from Emission Point E-86 to equal or exceed 10%. (40 CFR 60.62 (c))

b. The owner or operator shall not allow or cause the opacity from Stack S-27 to exceed 20%. This is the kiln by-pass. (40 CFR 60.62 (a)(2) and 40 CFR 63.1343(b)(2))

PM

See comment

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

Opacity (see comment)

i. The owner or operator shall conduct a monthly 1-minute visible emissions test on Stack S-28 and E-86 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

ii. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iii. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iv. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

e. The owner or operator shall inspect C-30, C-31 and C-32 baghouses for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collectors for signs of dust every two weeks.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity (see comment)

i. The owner or operator shall maintain records of:

A) results of all visible emission surveys and tests performed

B) the date and time of the survey

C) the name of the person conducting the survey or test

D) whether visible emissions were observed

E) a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

ii. For Stack S-27 see comment

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity (see comment)

i. The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

A) Emission Unit ID number and Emission Point ID number or Stack ID number
B) The beginning and ending date of the reporting period
C) The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)
D) Description of any corrective action taken pursuant to Additional Condition 2.a.iii.

ii. For Stack S-27 see comment

Comment

1. The source has undergone significant modifications, the by-pass stack no longer exists. Therefore, it is felt that it serves no useful purpose, to spell out PM compliance requirements or COM requirements for a unit that is no longer in operation.

2. With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-15 Description: Insufflation System

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c) and 40 CFR 63.1348)

Components:

Emission Point	**Description**	**Control ID**
E-87	Bin (K-907)	Baghouse C-33 (K-908)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-33	S-29	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

Opacity

The owner or operator shall not allow or cause the opacity from the baghouse C-33 to equal or exceed 10%. (40 CFR 60.62 (c) and 40 CFR 63.1348)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

Opacity (see comment)

a. The owner or operator shall conduct a monthly 1-minute visible emissions test on Stack S-29 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

b. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

c. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

d. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

e. The owner or operator shall inspect C-33 baghouse for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collector for signs of dust every two weeks.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity (see comment)

The owner or operator shall maintain records of:

i. results of all visible emission surveys and tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity (see comment)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

iv. Description of any corrective action taken pursuant to Additional Condition 2.a.iii.

Comment

1. The source has undergone significant modifications, the Insufflation System no longer exists. Therefore, it is felt that it serves no useful purpose, to spell out PM compliance requirements requirements for a unit that is no longer in operation.

2. With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-16 Description: Coal Handling System

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.14	Control of Fugitive Emissions	Sections 1, 2, 2.3 and 2.4
6.09	Standards of Performance for Existing Process Operations	Sections 1, 2, 3.1, 3.2, 3.3, 3.4, 3.6, 4, 5
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plans	Sections 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.12	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	Sections: 1 through 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	1.16, 2, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c))

Components:

Emission Point	Description	Control ID
E-88	Hopper	fugitive emissions, no control
E-89	Belt Conveyor (K-1304-1)	fugitive emissions, no control

.

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

   a. **Opacity**

      i. The owner or operator shall not allow or cause the opacity from the fugitive Emission Points E-88 and E-89 to equal or exceed 10%. (40 CFR 60.62 (c))

      ii. The owner or operator shall not cause or permit the discharge of fugitive emissions in excess of 20% opacity from Emission Point E-92. (Regulation 1.14, sec 2.2)

      iii. The owner or operator shall not cause or permit the discharge, from Emission Point E-92, of visible fugitive emissions beyond the lot line of the property on which the emissions originate. (Regulation 1.14, sec 2.3)

   b. **TAPs** (Regulation 5.11 & 5.12)

      The owner or operator shall limit Toxic Air Pollutant (TAP) emissions from Emission Point E-90 to no more than the Adjusted Significance Level (ASL) specified in Regulation 5.12 unless modeling or a BACT/RACT analysis has been performed and submitted to the District, to demonstrate compliance.

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

   a. **Opacity**

      i. To demonstrate compliance with the opacity standard, the owner or operator shall conduct a daily one-minute visible emissions survey, during normal operation and daylight hours, of the PM emission points identified as E-88, E-89, E-90, E-91 and E-92. No more than four Emission Points shall be observed simultaneously.

      ii. For Emission Points without observed visible emissions during twelve consecutive operating weeks, the owner or operator may elect to conduct a weekly one-minute visible emission survey, during normal operation and daylight hours. No more than four Emission Points shall be observed simultaneously.

      iii. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 for stack emissions or Method 22 for fugitive emissions within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the

exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted as indicated in 2.a.

iv. No visible emission survey needs to be performed if an Emission Point is not being operated during a given day, week or month (as appropriate).

b. **TAPs** (Regulation 5.11 & 5.12)

The owner or operator shall perform an analysis of the constituents in ash from any new source of this material and demonstrate that the emissions of these constituents do not exceed the ASL.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity

The owner or operator shall maintain records of:

a. results of all visible emission surveys and tests performed

b. the date and time of the survey

c. the name of the person conducting the survey or test

d. whether visible emissions were observed

e. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

b. **TAPs** (Regulation 5.11 & 5.12)

The owner or operator shall maintain, on site, all material analyses, of all current and past ash suppliers.

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

a. Emission Unit ID number and Emission Point ID number or Stack ID number

b. The beginning and ending date of the reporting period

c. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

d. Description of any corrective action taken pursuant to Additional Condition 2.a.iii.

b. **TAPs** (Regulation 5.11 & 5.12)

The owner or operator shall submit to the District for approval:

i. A request to utilize a new source or supply of ash.

ii. The laboratory analysis of the proposed ash

iii. Emissions evaluations for TAP compliance

Comment

Emission points E-90 and E-91 are storage piles and have been determined to be insignificant activities. See Insignificant activities listing.

Emission Unit U-17 Description: Coal Mill System

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
6.09	Standards of Performance for Existing Process Operations	Sections 1, 2, 3.1, 3.2, 3.3, 3.4, 3.6, 4, 5

Allowable Emissions:

Pollutant	Limit/Standard
Opacity	< 20% , Regulation 6.09, section 3.1

Components:

Emission Point	Description	Control ID
E-93	Coal Bin (K-902)	fugitive emissions, no control
E-94	Weigh Feeder ((K-930)	fugitive emissions, no control
E-95	Coal Mill (K-904) installed 1974	fugitive emissions, no control

.

Additional Conditions

1. **Standards** (Regulation 6.09, section 3.1)

Opacity

The owner or operator shall, for each particulate matter (PM) Emission Point subject to Regulation 6.09, not cause or permit the discharge of emissions equal to or in excess of 20% opacity.

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

Opacity

a. To demonstrate compliance with the opacity standard, the owner or operator shall conduct a weekly one-minute visible emissions survey, during normal operation and daylight hours, of the PM emission points identified as E-93, E-94 and E-95 No more than four Emission Points shall be observed simultaneously.

b. For Emission Points without observed visible emissions during twelve consecutive operating weeks, the owner or operator may elect to conduct a monthly one-minute visible emission survey, during normal operation and daylight hours. No more than four Emission Points shall be observed simultaneously.

c. For Emission Points without observed visible emissions during twelve consecutive operating weeks as per 2.b, the owner or operator may elect to conduct a monthly one-minute visible emission survey, during normal operation and daylight hours. No more than four Emission Points shall be observed simultaneously.

d. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 for stack emissions or Method 22 for fugitive emissions within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted as indicated in item 2.a.

d. No visible emission survey needs to be performed if an Emission Point is not being operated during a given day, week or month (as appropriate).

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity

The owner or operator shall maintain records of:

a. results of all visible emission surveys and tests performed

b. the date and time of the survey

c. the name of the person conducting the survey or test

d. whether visible emissions were observed

e. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

a. Emission Unit ID number and Emission Point ID number or Stack ID number

b. The beginning and ending date of the reporting period

c. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

d. Description of any corrective action taken pursuant to Additional Condition 2.a.iii.

Emission Unit U-18 Description: Clinker Cooler

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1345, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
PM	0.1 lb PM per ton of feed to the kiln (dry Basis) (40 CFR 60.62(b)(1) and 40 CFR 63.1345)
Opacity	<10% (40 CFR 60.62(c), 40 CFR 63.1345 and 40 CFR 63.1348)

Components:

Emission Point	Description	Control ID
E-97	Cooler (rear) (K-909)	Baghouse C-35 (K-924)
E-98	Drag (K-909-4)	Baghouse C-36 (K-917)
E-99	Elevator (west) (K-912)	fugitive emissions, no control
E-100	Elevator (K-913)	fugitive emissions, no control
E-101	Hot Tank (K-915)	Baghouse C-37 (K-915-4)
E-102	Belt Conveyor (K-949)	fugitive emissions, no control

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-35	S-30	Baghouse	See AC 2.b	N/A	See AC 2.a & 2.b	semi-annual
C-36	S-31	Baghouse	See AC 2.b	N/A	See AC 2.a & 2.b	semi-annual
C-37	S-32	Baghouse	See AC 2.b	N/A	See AC 2.a & 2.b	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

The owner or operator shall not allow or cause the opacity from the baghouses C-35, C-36 and C-37 to equal or exceed 10%. The owner or operator shall not allow or cause the opacity from the fugitive Emission Points E-99, E-100, E-101, and E-102 to equal or exceed 10%. (40 CFR 60.62 (c) 40 CFR 63.1345 and 40 CFR 63.1348)

b. **PM**

The owner or operator shall not cause to be discharged into the atmosphere, from Stack S-30, any gases which contain particulate matter in excess of 0.50 kg per metric ton of feed (dry basis) to the kiln (0.10 lb per ton).

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

a. **Opacity**

i. The owner or operator shall conduct a monthly 1-minute visible emissions test on Stacks S-31 and S-32 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

ii. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iii. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iv. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

v. The owner or operator shall install, calibrate, maintain and operate in accordance with 40 CFR 60.13, a continuous opacity monitoring

system to measure the opacity emissions discharged into the atmosphere from S-30.

vi. The owner or operator shall, during any period that the continuous opacity monitor (COM) is down for more than a twenty-four hour period, perform a Method 9 test on Stack S-30 once per day until the COM is back in operation. The results of such test(s) shall be supplied to the District in the source's semi-annual report.

b. **PM**

i. The owner or operator shall inspect C-35, C-36 and C-37 baghouses for the following items:

1) Verify fan is running and belts are on, daily.

2) Verify dampers are working properly daily.

3) Verify cleaning mechanism is working properly every two weeks

4) Replace all worn bags as needed.

5) Verify bags are clean and not filled with dust every two weeks

6) Verify dust removal system is working properly every two weeks, and

7) Inspect area around collectors for signs of dust every two weeks.

ii. The owner or operator shall test Stack S-30 once every five years using Methods 1 through 5. The test shall occur by no later than the end of the first quarter of the fourth year of the permit.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

a. **Opacity**

The owner or operator shall maintain records of:

i. results of all visible emission surveys and tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

b. **PM**

The owner or operator shall maintain records of:

i. results of all inspections performed

ii. the date and time of the inspection

iii. the name of the person conducting the inspection

iv. results of observed findings and any corrective actions taken

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

a. **Opacity**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

iv. Description of any corrective action taken pursuant to Additional Condition 2.a.iii.

v. The owner or operator shall submit reports of excess emissions as defined in 40 CFR 60.63(d). The content of these reports must comply with the requirements of 40 CFR 60.7(c). Not withstanding the provisions of 40 CFR 60.7(c), such reports shall be submitted semi-annually. (Regulation 40 CFR 60.65)

vi. For purposes of reports under 40 CFR 60.65, periods of excess emissions shall be reported are defined as all 6-minute periods during which the average opacity exceeds that allowed by 40 CFR 60.62(a)(2) or 40 CFR 60(b)(2) for Stack S-30. (Regulation 40 CFR 60.63)

b. **PM**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for PM:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, results of inspections that had negative consequences to PM compliance, and corrective action taken to remedy the discovered problem.

Comment

With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-19 Description: Clinker Handling / Storage / Reclaim

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	Limit/Standard
Opacity	<10% (40 CFR 60.62(c) and 40 CFR 63.1348)

Components:

Emission Point	Description	Control ID
E-103	Belt Conveyor (K-949)	Baghouse C-38 (K-949-5)
E-104	Belt Conveyor (K-949-3)	Baghouse C-39 (K-958)
E-105	Tripper Belt Conveyor (K-950)	Baghouse C-40 (K-954)
E-107	Drag (K-957)	Baghouse C-39 (K-958)
E-108	Clinker Bins (K-1000, K-1001, K-1015 & K-1016)	Baghouse C-39 (K-958)
E-109	Hopper (K-1308-1)	fugitive emissions, no control
E-110	Belt Conveyor (K-1308)	fugitive emissions, no control
E-111	Elevator (K-955)	Baghouse C-40 (K-954)
E-112	6 Feeders (K-951-1 thru K-951-6)	Baghouses C-41 thru C-46 (K-953 thru K-953-5)
E-113	Belt Conveyor (K-952)	Baghouses C-41 thru C-46 (K-953 thru K-953-5)
E-114	Belt Conveyor (K-956)	Baghouse C-40 (K-954)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-38	S-33	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-39	S-34	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-40	S-35	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-41	S-36	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-42	S-37	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-43	S-38	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-44	S-39	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-45	S-40	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-46	S-41	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

Opacity

The owner or operator shall not allow or cause the opacity from the baghouses C-38, C-39, C-40, C-41, C-42, C-43, C-44, C-45 and C-46 to equal or exceed 10%. The owner or operator shall not allow or cause the opacity from the fugitive Emission Points E-109 and E-110 to equal or exceed 10%. (40 CFR 60.62 (c) and 40 CFR 63.1348)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

Opacity

a. The owner or operator shall conduct a monthly 1-minute visible emissions test on Stacks S-33 through S-41 in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

b. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

c. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

d. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

e. The owner or operator shall inspect C-38, C-39, C-40, C-41, C-42, C-43, C-44, C-45 and C-46 baghouses for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collectors for signs of dust every two weeks.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity

The owner or operator shall maintain records of:

i. results of all visible emission surveys and tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

iv. Description of any corrective action taken pursuant to Additional Condition 2.

Comment

With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-20 Description: Finish Mill No. 1

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1347, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355
6.13	Standard of Performance for New Storage Vessels for Volitile Organic Compounds	1, 2, 3.3, 4, 5, 6

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c) and 40 CFR 63.1347 and 40 CFR 63.1348)

Components:

Emission Point	Description	Control ID
E-115	Weigh Feeder (K-1001-1)	fugitive emissions, no control
E-116	Weigh Feeder (K-1001-2)	fugitive emissions, no control
E-117	Mill (K-1003)	Baghouse C-47 (K-1012)
E-118	Elevator (K-1006)	Baghouse C-47 (K-1012)
E-119	Separator (K-1008)	Baghouse C-48 (K-1014)
E-120	Pump (K-1011)	Baghouse C-48 (K-1014)
none	Storage Tank - 2,000 gal (grinding aid) installed 1974	N/A
none	Storage Tank - 12,000 gal (grinding aid) installed 1974	N/A
none	Storage Tank - 12,000 gal (air entraining agent) installed 1974	N/A

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-47	S-42	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-48	S-43	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

The owner or operator shall not allow or cause the opacity from the baghouses C-47 and C-48 to equal or exceed 10%. The owner or operator shall not allow or cause the opacity from the fugitive Emission Points E-115 and E-116 to equal or exceed 10%. (40 CFR 60.62 (c), 40 CFR 63.1347 and 40 CFR 63.1348)

b. **VOC**

The owner or operator of a VOC storage vessel with a capacity of 250 gallons or more, and the material to be stored has a vapor pressure equal to or greater than 1.5 psia, shall equip the storage vessel with permanent submerged fill pipe. (Regulation 6.13, section 3.3)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

a. **Opacity**

i. The owner or operator shall, for Emission points E-115 and E-116 conduct a monthly 1-minute visible emissions test of this emission unit in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

ii. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iii. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iv. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

v. The owner or operator shall, for control device C-47 and C-48, monitor opacity at stacks S-42 and S-43 by conducting daily visible emissions observations of the mill sweep and air separator particulate matter control devices, in accordance with procedures of 40 CFR 60, Appendix A, Method 22. The Method 22 test shall be conducted while the emission unit is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 visible emissions test, the owner or operator shall:

1) Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan;

2) Conduct a Method 22 or Method 9 test after the corrective action is completed.
   A) If no visible emissions are observed, return to monitoring described above.
   B) If visible emissions are still observed, the owner or operator shall, within 24 hours of the end of the Method 22 test in which visible emissions were first observed, conduct a visible emissions test of each stack from which visible emissions were observed in accordance with procedures of 40 CFR 60, Appendix A, Method 9. The duration of the Method 9 shall be 30 minutes.

g. The owner or operator shall test Stack S-42 once every five years using Method 9. The test shall occur by no later than the end of the first quarter of the fourth year of the permit.

h. The owner or operator shall inspect C-47 and C-48 baghouses for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collectors for signs of dust every two weeks.

b. **VOC**

No compliance monitoring required, see comment 2.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

a. **Opacity**

The owner or operator shall maintain records of:

i. results of all visible emission surveys and tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

b. **VOC**

No compliance record keeping required, see comment 2.

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

a. **Opacity**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

iv. Description of any corrective action taken pursuant to Additional Condition 2.

b. **VOC**

No compliance reporting required, see comment 2.

Comment

1. With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

2. The VOC materials stored in the two grinding agent tanks and the one air entrainment agent tank have vapor pressures much less than 1.5 psia. Therefore, even though the regulation applies, there are no standards to meet. The air entrainment agent is a HAP, however there are no standards or MACT for this emission point.

3. All three finish mills, emission units E-20 through E-22 draw from these three tanks.

Emission Unit U-21 Description: Finish Mill No. 2

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1347, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c), 40 CFR 63.1347 and 40 CFR 63.1348)

Components:

Emission Point	Description	Control ID
E-121	Weigh Feeder (K-1016-1)	fugitive emissions, no control
E-122	Weigh Feeder (K-1015-2)	fugitive emissions, no control
E-123	Mill (K-1018)	Baghouse C-49 (K-1012)
E-124	Elevator (K-1021)	Baghouse C-49 (K-1012)
E-125	Separator (K-1023)	Baghouse C-50 (K-1014)
E-126	Pump (K-1026-2)	Baghouse C-50 (K-1014)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-49	S-44	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-50	S-45	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

Opacity

The owner or operator shall not allow or cause the opacity from the baghouses C-49 and C-50 to equal or exceed 10%. The owner or operator shall not allow or cause the opacity from the fugitive Emission Points E-121 and E-122 to equal or exceed 10%. (40 CFR 60.62 (c), 40 CFR 63.1347 and 40 CFR 63.1348)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

Opacity

a. The owner or operator shall, for Emission points E-121 and E-122 conduct a monthly 1-minute visible emissions test of this emission unit in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

b. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

c. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

d. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

e. The owner or operator shall, for control device C-49 and C-50, monitor opacity at stacks S-44 and S-45 by conducting daily visible emissions observations of the mill sweep and air separator particulate matter control devices, in accordance with procedures of 40 CFR 60, Appendix A, Method 22. The Method 22 test shall be conducted while the emission unit is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 22 test shall be six minutes. If

visible emissions are observed during any Method 22 visible emissions test, the owner or operator shall:

i. Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan;

ii. Conduct a Method 22 or Method 9 test after the corrective action is completed.
   1. If no visible emissions are observed, return to monitoring described above.
   2. If visible emissions are still observed, the owner or operator shall, within 24 hours of the end of the Method 22 test in which visible emissions were first observed, conduct a visible emissions test of each stack from which visible emissions were observed in accordance with procedures of 40 CFR 60, Appendix A, Method 9. The duration of the Method 9 shall be 30 minutes.

g. The owner or operator shall test Stack S-44 once every five years using Method 9. The test shall occur by no later than the end of the first quarter of the fourth year of the permit.

f. The owner or operator shall inspect C-49 and C-50 baghouses for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collectors for signs of dust every two weeks.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity

The owner or operator shall maintain records of:

i. results of all visible emission surveys and tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

iv. Description of any corrective action taken pursuant to Additional Condition 2.

Comment

1. With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

2. All three finish mills, emission units E-20 through E-22 draw from the three tanks in Emission Unit E-20.

Emission Unit U-22 Description: Finish Mill No. 3 for Kosmortar Mixing

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1347, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c) and 40 CFR 63.1348)

Components:

Emission Point	Description	Control ID
E-127	Hopper (K-1100)	Baghouse C-51 (K-1102)
E-128	Pump (K-1011)	Baghouse C-51 (K-1102)
E-129	Lime Bin (K-1105)	Baghouse C-52 (K-1103)
E-130	Mortar Silo (K-1106)	Baghouse C-53 (K-1104)
E-131	Pump (K-1112)	fugitive emissions, no control
E-132	Mortar Bin (K-1114)	Baghouse C-54 (K-1113)
E-133	Ground Limestone Bin (K-1116)	Baghouse C-55 (K-1115)
E-134	Feed Screw (K-1127)	Baghouse C-56 (K-1128)
E-135	Kosmos Mortar Mixing Mill (K-1129)	Baghouse C-56 (K-1128)
E-136	Pump (K-1130)	Baghouse C-56 (K-1128)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-51	S-46	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-52	S-47	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-53	S-48	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-54	S-49	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-55	S-50	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-56	S-51	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

Opacity

The owner or operator shall not allow or cause the opacity from the baghouses C-51, C-52, C-53, C-54, C-55 and C-56 to equal or exceed 10%. The owner or operator shall not allow or cause the opacity from the fugitive Emission Point E-131 to equal or exceed 10%. (40 CFR 60.62 (c) and 40 CFR 63.1348)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

Opacity

a. The owner or operator shall, for Emission Point E-131 and stacks S-46, S-47, S-48, S-49, S-50 and S-51 conduct a monthly 1-minute visible emissions test of this emission unit in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

b. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

c. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

d. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

e. The owner or operator shall test Stack S-51 once every five years using Method 9. The test shall occur by no later than the end of the first quarter of the fourth year of the permit.

f. The owner or operator shall inspect C-51, C-52, C-53, C-54, C-55 and C-56 baghouses for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collectors for signs of dust every two weeks.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity

The owner or operator shall maintain records of:

i. results of all visible emission surveys and tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

iv. Description of any corrective action taken pursuant to Additional Condition 2.

Comment

1. With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

2. All three finish mills, emission units E-20 through E-22 draw from the three tanks in Emission Unit E-20.

Emission Unit U-23 Description: Lime Slurry System

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart OOO	Standards of Performance for Nonmetallic mineral Processing Plants	Sections 60.670, 60.671, 60.672, 60.675

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.02	Federal New Source Performance Standards Incorporated by Reference	1.72, 2, 3, 4, 5

Allowable Emissions:

Pollutant	Limit/Standard
Opacity	10% (40 CFR 60.672(b))
Opacity	7% (40 CFR 60.672(a)(2))
PM	0.05 g/dscm (40 CFR 60.672(a)(1))

Components:

Emission Point	Description	Control ID
E-137	Tank (K-554)	Baghouse C-57 (K-557)
E-138	Tank (K-555)	Baghouse C-57 (K-557)
E-139	Tank (K-556)	Baghouse C-57 (K-557)
E-140	Level Box (K-1540)	fugitive emissions, no control
E-141	Truck Load Out (K-104)	fugitive emissions, no control

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-57	S-52	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (40 CFR 60, Subpart OOO)

a. **Opacity**

i. The owner or operator shall not allow or cause the opacity from Emission Points E-140 and E-141 to exceed 10%; (40 CFR 60.672 (b))

ii. The owner or operator shall not allow or cause the opacity from S-52 to exceed 7%; (40 CFR 60.672 (a)(2))

b. PM

The owner or operator shall not allow PM emissions to exceed 0.05 g/dscm from S-52.

2. Monitoring Requirements (Regulation 2.16, sections 4.1.9.1.2.)

a. **Opacity**

i. To demonstrate compliance with the opacity standard, the owner or operator shall conduct a daily one-minute visible emissions survey, during normal operation and daylight hours, of the fugitive PM Emission Points identified as E-140 and E-141 and Stack S-52. No more than four Emission Points shall be observed simultaneously.

ii. For Emission Points without observed visible emissions during twelve consecutive operating weeks, the owner or operator may elect to conduct a weekly one-minute visible emission survey, during normal operation and daylight hours. No more than four Emission Points shall be observed simultaneously.

iii. For Emission Points without observed visible emissions during twelve consecutive operating weeks as per 2.a.ii, the owner or operator may elect to conduct a monthly one-minute visible emission survey, during normal operation and daylight hours. No more than four Emission Points shall be observed simultaneously.

iv. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 for stack emissions or Method 22 for fugitive emissions within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all

practicable steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted as indicated in 2.a.

iv. No visible emission survey needs to be performed if an Emission Point is not being operated during a given day, week or month (as appropriate).

b. **PM**

The owner or operator shall inspect the C-57 baghouse for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collector for signs of dust every two weeks.

3. Record Keeping (Regulation 2.16, section 4.1.9.2)

a. **Opacity**

The owner or operator shall maintain records of:

i. results of all visible emission surveys and tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

b. **PM**

The owner or operator shall maintain records of:

i. the date and time of the inspection

ii. the name of the person conducting the inspection

iii. inspection findings

iv. any maintenance, bag replacement or repairs instituted

4. Reporting (Regulation 2.16, section. 4.1.9.3)

a. **Opacity**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 22 conducted (or a negative declaration if none)

iv. Description of any corrective action taken pursuant to Additional Condition 2.

b. **PM**

No compliance reporting required

Comment

This facility is subject to subpart OOO because the product is not for cement production, it is sent to clients off site. Because the source owns the limestone quarry, it follows that this facility is an extension of the non-metallic mineral production. This is a continuation of the Emission Units 1 & 2 processes.

Emission Unit U-24 Description: Rail / Barge Loading

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	**Limit/Standard**
Opacity	<10% (40 CFR 60.62(c) and 40 CFR 63.1348)

Components:

Emission Point	Description	Control ID
E-143	Silo 12	Baghouse C-58 (K-1420)
E-144	Pump (K-1424)	Baghouse C-59 (K-1425)
E-145	Silos 4 thru 11	Baghouses C-60 thru C-62 (K-1450, K-1452 & K-1454)
E-146	Rail Car Load Spout (K-1485)	Baghouse C-63 (K-1487)
E-147	Diversion Bin (K-1490)	Baghouse C-64 (K-1491)
E-148	Pump (K-1443)	Baghouse C-59 (K-1425)
E-149	Surge Bin (K-1433)	Baghouse C-65 (K-1431)
E-150	Pump (K-1438)	Baghouse C-65 (K-1431)
E-151	Barge	Baghouse C-66 (K-1430)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-58	S-53	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-59	S-54	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-60	S-55	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-61	S-56	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-62	S-57	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-63	S-58	Baghouse	See AC 2	N/A	See AC 2	semi-annual

C-64	S-59	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-65	S-61	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-66	S-62	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

Opacity

The owner or operator shall not allow or cause the opacity from the baghouses C-58, C-59, C-60, C-61, C-62, C-63, C-64, C-65 and C-66 to equal or exceed 10%. (40 CFR 60.62 (c) and 40 CFR 63.1348)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

Opacity

a. The owner or operator shall, for stacks S-53, S-54, S-55, S-56, S-57, S-58, S-59, S-61 and S-62 conduct a monthly 1-minute visible emissions test of this emission unit in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

b. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

c. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

d. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

e. The owner or operator shall inspect C-58, C-59, C-60, C-61, C-62, C-63, C-64, C-65 and C-66 baghouses for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collectors for signs of dust every two weeks.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity

The owner or operator shall maintain records of:

i. results of all visible emission surveys and tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

iv. Description of any corrective action taken pursuant to Additional Condition 2.

Comment

With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-25 Description: Truck Loading

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	Limit/Standard
Opacity	<10% (40 CFR 60.62(c) and 40 CFR 63.1348)

Components:

Emission Point	Description	Control ID
E-152	Silos 1 thru 3	Baghouse C-67 (K-1400)
E-153	Load Spout East (K-1410)	Baghouse C-69 (K-1412)
E-154	Load Spout West (K-1406)	Baghouse C-68 (K-1408)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-67	S-63	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-68	S-64	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-69	S-65	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

Opacity

The owner or operator shall not allow or cause the opacity from the baghouses C-67, C-68 and C-69 to equal or exceed 10%. (40 CFR 60.62 (c) and 40 CFR 63.1348)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

Opacity

a. The owner or operator shall, for stacks S-63, S-64 and S-65 conduct a monthly 1-minute visible emissions test of this emission unit in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

b. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

c. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

d. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

e. The owner or operator shall inspect C-67, C-68, and C-69 baghouses for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collectors for signs of dust every two weeks.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity

The owner or operator shall maintain records of:

i. results of all visible emission surveys and tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

iv. Description of any corrective action taken pursuant to Additional Condition 2.

Comment

With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-26 Description: Storage Silos (13 - 17) & Packaging

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants	Sections: 60.60, 60.61, 60.62, 60.63, 60.64, 60.65 & 60.66
40 CFR 63 Subpart A	General Provisions	Sections: 63.1 thru 63.15, excluding 63.11
40 CFR 63 Subpart LLL	National Emission Standards For Hazardous Air Pollutants From Portland Cement Manufacturing Industry	Sections: 63.1340, 63.1341, 63.1342, 63.1348, 63.1349, 63.1350, 63.1351, 63.1353, 63.1354, and 63.1355

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Sections: 2, 3, 4, and 5
5.14	Hazardous Air Pollutants and Source Categories	Sections: 1, 2 and 3
7.02	Federal New Source Performance Standards Incorporated by Reference	Sections: 1.162, 3, 4, 5

Allowable Emissions:

Pollutant	Limit/Standard
Opacity	<10% (40 CFR 60.62(c) and 40 CFR 63.1348)

Components:

Emission Point	Description	Control ID
E-155	Silos 13-17	Baghouse C-70 (K-1243)
E-156	Silos 13-17	Baghouse C-71 (K-1244)
E-157	Elevator (K-1206)	Baghouse C-72 (K-1246)
E-158	Elevator (K-1229)	Baghouse C-73 (K-1245)
E-159	Holding Bin (A)	Baghouse C-73 (K-1245)
E-160	Surge Bin (A)	Baghouse C-73 (K-1245)
E-161	Pack (K-1235)	Baghouse C-73 (K-1245)
E-162	Holding Bin (B)	Baghouse C-72 (K-1246)
E-163	Surge Bin (B)	Baghouse C-72 (K-1246)
E-164	Packer (K-1217)	Baghouse C-72 (K-1246)
E-165	Holding Bin (C)	Baghouse C-74 (K-1247)
E-166	Surge Bin (C)	Baghouse C-74 (K-1247)
E-167	Packer (K-1218)	Baghouse C-74 (K-1247)
E-168	Truck Load Out	Baghouse C-75 (K-1281)

Control Devices:

ID	Stack ID	Description	Performance Indicator	Range	Monitoring & Frequency	Reporting Frequency
C-70	S-66	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-71	S-67	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-72	S-68	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-73	S-69	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-74	S-70	Baghouse	See AC 2	N/A	See AC 2	semi-annual
C-75	S-71	Baghouse	See AC 2	N/A	See AC 2	semi-annual

Additional Conditions

1. **Standards** (Regulation 2.16, section 4.1.1)

Opacity

The owner or operator shall not allow or cause the opacity from the baghouses C-70, C-71, C-72, C-73 C-74, and C-75 to equal or exceed 10%. (40 CFR 60.62 (c) and 40 CFR 63.1348)

2. **Monitoring** (Regulation 2.16, sections 4.1.9.1.2.)

Opacity

a. The owner or operator shall, for stacks S-66 through S-71 conduct a monthly 1-minute visible emissions test of this emission unit in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the emission unit is in operation.

b. If no visible emissions are observed in six consecutive monthly tests, the owner or operator may decrease the frequency of testing from monthly to semi-annually for this emission unit. If visible emissions are observed during any semi-annual test, the owner or operator shall resume testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

c. If no visible emissions are observed during two consecutive tests from this emission unit, the owner or operator may decrease the frequency of testing from semi-annually to annually. If visible emissions are observed during any annual test, the owner or operator shall resume testing on a monthly basis. and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

d. If visible emissions are observed during any Method 22 test, the owner or operator shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 Test must begin within one hour of any observation of visible emissions.

e. The owner or operator shall test Stacks S-66 and S-67 once every five years using Method 9. The test shall occur by no later than the end of the first quarter of the fourth year of the permit.

f. The owner or operator shall inspect C-70, C-71, C-72, C-73, C-74, and C-75 baghouses for the following items:

i. Verify fan is running and belts are on, daily.

ii. Verify dampers are working properly daily.

iii. Verify cleaning mechanism is working properly every two weeks

iv. Replace all worn bags as needed.

v. Verify bags are clean and not filled with dust every two weeks

vi. Verify dust removal system is working properly every two weeks, and

vii. Inspect area around collectors for signs of dust every two weeks.

3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

Opacity

The owner or operator shall maintain records of:

i. results of all visible emission surveys and tests performed

ii. the date and time of the survey

iii. the name of the person conducting the survey or test

iv. whether visible emissions were observed

v. a negative declaration may be entered in the record if an Emission Point is not being operated during a given day, week or month (as appropriate)

4. **Reporting** (Regulation 2.16, section. 4.1.9.3)

Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for opacity:

i. Emission Unit ID number and Emission Point ID number or Stack ID number

ii. The beginning and ending date of the reporting period

iii. The date, time, and result of each Method 9 or Method 22 conducted (or a negative declaration if none)

iv. Description of any corrective action taken pursuant to Additional Condition 2.

Comment

With the owner or operator agreement, it was decided to implement the Cement MACT opacity monitoring procedures before the required compliance date.

Emission Unit U-29 Description: Gasoline Dispensing Facility

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.15	Standards of Performance for Gasoline Transfer To New Service Station Storage Tanks (Stage 1 Vapor Recovery)	1,2, 3.1, 3.3, 3.8, 4, 5, 6

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.14	Hazardous Air Pollutants and Source Categories	1 and 2

Allowable Emissions:

Pollutant	Limit/Standard
VOC	See Additional Conditions 1, 2, and 3

Components:

Emission Point	Description	Control ID
E-171	4000 gallon Gasoline Storage Tank & Dispensing Facility	Stage I

Additional Conditions

1. Standards (Regulation 7.15)

a. The owner or operator shall install, maintain and operate the storage tank with a submerged fill pipe, a vapor balance system and vapor tight connections on the liquid fill and vapor return hoses. (Regulation 7.15, sec. 3.1.1 and 3.14)

b. The owner or operator shall equip all fill tubes with vapor-tight covers including gaskets. (Regulation 7.15, sec. 3.8.1)

c. The owner or operator shall maintain all hoses, fittings, and couplings in a vapor-tight condition. (Regulation 7.15, sec. 3.8.5)

2. Monitoring (Regulation 2.16, section 4.1.9.1.2)

The owner or operator shall perform a monthly visual inspection of this facility to assure that gaskets, hoses and couplings are maintaining their vapor tight characteristics.

3. Record Keeping (Regulation 2.16, section 4.1.9.2)

The owner or operator shall maintain records of the monthly inspections performed. These records shall include:

a. Date of inspection
b. Name of who performed the inspection
c. Findings of the inspection
d. Date of any remedial action
e. Description of the remedial action taken

4. Reporting (Regulation 2.16, section 4.1.9.3)

The owner or operator shall report, semi-annually, at a minimum, the following information:

a. Emission Unit ID number and Emission Point ID number or Stack ID number
b. The beginning and ending date of the reporting period
c. Remedial measures taken, should 3.e have an entry during the reporting period.

Emission Unit U-30 Description: Non-halogenated Cold Solvent Metal Cleaners

Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.05	Compliance with Emission Standards and Maintenance Requirements	1, 3, 4, 5
6.18	Standards of Performance for Existing Solvent Metal Cleaning Equipment	1, 2, 3, 4.1, 4.2

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.14	Hazardous Air Pollutants and Source Categories	1, 2, 3, 4
5.11	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants	1, 2, 3, 4, 5, 6

Allowable Emissions:

Pollutant	Limit/Standard
TAPs	See Additional Condition # 3
VOC	See Additional Condition #1

Components:

Non-halogenated cold solvent metal cleaning tank, rated capacity of 30 gal, installed in 1994. Fugitive emission point.

Additional Conditions

1. Standards Regulation 2.16, section 4.1.1)

a. **VOC**

i. The cleaner shall be equipped with a cover. If the VOC volatility is greater than 15 mm Hg measured at 100EF or if the VOC is agitated or heated, then the cover shall be designed so that it can be easily operated with one hand.

ii. The cleaner shall be equipped with a drainage facility such that VOC that drains off parts removed from the cleaner will return to the cleaner. If the VOC volatility is greater than 32 mm Hg measured at 100EF, then the drainage facility shall be internal so that parts are enclosed under the cover while draining. The drainage facility may be external if the District determines that an internal type cannot fit into the cleaning system.

iii. A permanent, conspicuous label summarizing the operating requirements specified in 1.a.vi, vii, and viii shall be installed on or near the cleaner.

iv. If used, the VOC spray shall be a fluid stream (not a fine, atomized, or shower type spray) at a pressure that does not cause excessive splashing.

v. If the VOC volatility is greater than 32 mm Hg measured at 100EF or if the VOC is heated above 120EF, then one of the following control devices shall be used:

1) Freeboard that gives a freeboard ratio equal to or greater than 0.7,
2) Water cover (VOC must be insoluble in and heavier than water), or
3) Other systems of equivalent control, such as a refrigerated chiller or carbon absorption.

vi. Do not dispose of waste VOC or transfer it to another party in a manner that more than 20% by weight of the waste VOC can evaporate into the atmosphere. Store waste VOC only in covered containers,

vii. Close degreaser cover whenever not handling a part in the cleaner, and

viii. Drain cleaned parts until dripping ceases (15 seconds is usually necessary).

ix Operate a cold cleaning degreaser with a solvent vapor pressure that exceeds 1.0 mm Hg (0.019 psi) measured at 20EC (68EF).

b. **TAPs**

Limit Toxic Air Pollutant (TAP) emissions from this source to no more than the Adjusted Significance Level (ASL) specified in Regulations 5.11 and 5.12 for this emission unit, unless modeling or a BACT/RACT analysis has been performed to demonstrate compliance.

2. Monitoring , Regulation 2.16, section 4.1.9.1.2)

a. **VOC**

See additional condition 3.a

b. **TAPs**

i. The owner or operator shall calculate average hourly TAP emissions, based on records maintained for additional condition 3.a, to assure that the ASL has not been exceeded.

ii. The owner or operator may submit a one time demonstration that the PTE for TAP emissions from this facility can not exceed the calculated ASL. Such submittal will negate additional conditions 3.b and 4.b.

3. Record Keeping (Regulation 2.16, section 4.1.9.2)

a. **VOC**

i. The owner or operator shall keep monthly records of VOC usage for each emission point.

ii. The owner or operator shall:

1) The name and address of the solvent supplier,
2) The date of the purchase,
3) The type of the solvent, and
4) The vapor pressure of the solvent measured in mm Hg at 20EC (68EF).

iii. The owner or operator shall maintain records of employee training for the proper operation of this emission unit. These records shall contain:
1) The date of the training
2) The name of the person trained
3) Who performed the training

b. **TAPs**

Based on 3.a, the owner or operator shall, on a monthly basis, calculate hourly TAP emissions to demonstrate compliance with additional condition 1.b.

4. Reporting (Regulation 2.16, section 4.1.9.3)

The owner or operator shall clearly identify all deviations from permit requirements in the semi-annual reports. All reports shall be certified by a responsible official as defined in Regulation 2.16, section 2.36. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration for each of the following categories.

a. **VOC**

The owner or operator shall report semi-annually the following for each emission point:

i. Emission Unit ID number and Emission point ID number
ii. The beginning and ending date of the reporting period
iv. Identification of applicable equipment standard or record
v. A declaration that the equipment standard or record is being maintained

b. **TAPs**

The owner or operator shall report any occurrence where the calculated ASL was exceeded.

No_x RACT Plan
Amendment 1

1. The oxides of nitrogen (NO_x, expressed as NO_2) emission from the cement kiln shall not exceed 6.6 pounds per ton of clinker produced by the kiln, based upon a rolling 30-day average.

2. The NOx emission rate for the cement kiln shall be determined using the methods and procedures specified in NO_x RACT Plan Appendix A - Amendment 1 and Appendix B - Amendment 1.

3. The Kosmos Cement Company (Kosmos) shall install, calibrate, maintain, and operate a NO_x continuous emissions monitoring system (CEMS) for the cement kiln and shall keep records and submit reports and other notifications as specified in NO_x RACT Plan Appendix A - Amendment 1 and Appendix B - Amendment 1 .

4. Kosmos shall keep a record identifying all deviations from the requirements of this NO_x RACT Plan and shall submit to the District a written report of all deviations that occurred during the preceding semi-annual period. Semi-annual periods shall run from January 1 to June 30 and July 1 to December 31. The semi-annual report shall contain the information specified in NO_x RACT Plan Appendix A - Amendment 1 Section II. A. and B. If no deviation occurred during the semi-annual period, the report shall contain a negative declaration. Each report shall be submitted within 60 days following the end of the semi-annual period.

5. In lieu of the requirements in this NO_x RACT Plan, Kosmos may comply with alternative requirements regarding emission limitations, equipment operation, test methods, monitoring, record keeping, or reporting, provided the following conditions are met:

a. The alternative requirements are established and incorporated into an operating permit pursuant to a Title V Operating Permit issuance, renewal, or significant permit revision process as established in Regulation 2.16,

b. The alternative requirements are consistent with the streamlining procedures and guidelines set forth in section II.A. of *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program*, March 5, 1996, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. The overall effect of compliance with alternative requirements shall consider the effect on an intrinsic basis, such as pounds per ton of clinker produced by the kiln,

c. The U.S. Environmental Protection Agency (EPA) has not objected to the issuance, renewal, or revision of the Title V Operating Permit, and either

d. If the public comment period preceded the EPA review period, then the District had transmitted any public comments concerning the alternative requirements to EPA with the proposed permit, or

e. If the EPA and public comment periods ran concurrently, then the District had transmitted any public comments concerning the alternative requirements to EPA no later than 5 working days after the end of the public comment period.

The District's determination of approval of any alternative requirements is not binding on EPA. Noncompliance with any alternative requirement established pursuant to the Title V Operating Permit process constitutes a violation of this NO_x RACT Plan.

Appendix A to NO_x RACT Plan
Amendment 1
Requirements for NO_x CEMS

1. General Operating Requirements

a. Kosmos shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring oxides of nitrogen (NO_x) emissions discharged to the atmosphere from the cement kiln and record the output of the system.

b. The NO_x CEMS shall be operated and data recorded during all periods of operation of the cement kiln except for CEMS breakdowns and repairs. Data shall be recorded during calibration checks and zero and span adjustments.

c. The 1-hour average NO_x emission rates measured by the CEMS shall be expressed in pounds per ton of clinker produced by the cement kiln and shall be used to calculate the average emission rates. At least 2 data points shall be used to calculate each 1-hour average.

d. The NO_x rates expressed in pounds per ton of clinker produced shall be calculated using the exhaust flow rate of 233,500 dry standard cubic feet per minute. As an alternative, the NO_x emission rates may be calculated using exhaust flow rates obtained by a flow measuring monitor as approved by the District. A flow measuring monitor shall meet the requirements in NO_x RACT Plan Appendix B - Amendment 1.

e. The procedures under 40 CFR §60.13 (d), (e), (f), and (h) shall be followed for installation, evaluation, and operation of the CEMS.

f. The NO_x CEMS shall be installed and operated in compliance with the requirements of 40 CFR Part 60 Appendix B Performance Specification 2 and the quality assurance and certification requirements of Performance Specification 2 shall be met as well as the requirements in this Appendix.

g. The span value for the NO_x CEMS shall be determined so that all expected concentrations can be accurately measured and recorded as indicated in NO_x RACT Plan Appendix B - Amendment 1.

h. The Quality Assurance Procedures in 40 CFR Part 60 Appendix F shall be followed. All reporting required by 40 CFR Part 60 Appendix F to be submitted to the Agency shall instead be submitted to the District.

i. When NO_x emission data or flow monitor data (if a flow monitor is used) are not obtained because of CEMS breakdowns, repairs, calibration checks, or zero and span adjustments, emission data shall be obtained by using one of the following options to provide emission data for a minimum of 75% of the operating hours in

each kiln operating day, in at least 22 out of 30 successive cement kiln operating days:

i. Standby monitoring systems, 40 CFR Part 60 Appendix A Method 7 or Method 7a, or other approved reference methods, or

ii. Data substitution as follows:

A) If the missing data period is 6 hours or less, then substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data, and

B) If the missing data period is greater than 6 hours, then substitute the greatest emission rate or flow (if a flow monitor is used) recorded during the previous 168 quality-assured monitor operating hours at a clinker production rate that is within 10% of the current operating rate. If there are not enough data to satisfy this requirement, then substitute data from a higher clinker production rate or the maximum design flow or emission rate.

All "estimated" data shall be reported with a clear notation that they are estimated and not obtained from a certified monitor or EPA-approved test method.

j. The clinker production rate shall be determined and recorded during all periods of operation of the cement kiln except for breakdowns and repairs of the system used to determine the clinker production rate (raw materials weigh feeder and associated data acquisition system). Data shall be recorded during periods of calibration for the weigh feeder, which at a minimum shall be performed annually.

k. The clinker production rate determined from monitoring the rate of raw materials input to the cement kiln shall be calculated by dividing the rate of raw materials input to the cement kiln by the current raw materials conversion factor. The raw materials conversion factor shall be determined on a quarterly basis and this conversion factor shall be used in the calculation of the clinker production rate until the next quarterly raw materials conversion rate test is performed. The raw materials conversion rate factor shall be determined by weighing and recording the raw materials input to the cement kiln with the weigh feeder and weighing and recording the clinker output from the cement kiln with the use of a certified scale over a four- to twelve-hour period and an average calculated from those data. The current raw materials conversion factor shall be included with the semi-annual emissions report.

l. If a flow monitor is used in the determination of the pounds NO_x per ton of clinker produced by the cement kiln, then the flow monitoring system shall meet all the requirements specified in NO_x RACT Plan Appendix B - Amendment 1.

m. The data acquisition and handling system used in recording and reporting the necessary information required for the determination of compliance with the limit set for the pounds of NO_x per ton of clinker produced by the cement kiln shall

meet all of the requirements specified in NO_x RACT Plan Appendix B - Amendment 1.

n. A monitoring plan shall be created and kept current for the system used to determine compliance with the pounds of NO_x per ton of clinker produced by the cement kiln limit. The most current version of the monitoring plan shall be submitted to the District and also be easily accessed by the monitoring system operation personnel.

2. Reporting and record keeping requirements

a. Kosmos shall keep records and submit semi-annual reports for each operating day including the following information:

i. Calendar date,

ii. The average hourly NO_x emission rates measured, expressed as pounds per ton of clinker produced by the cement kiln,

iii. The 30-day average NO_x emission rates, expressed as pounds per ton clinker produced by the cement kiln, calculated at the end of each cement kiln operating day from the measured hourly nitrogen oxide emission rates for the preceding 30 cement kiln operating days. The average shall not include data recorded during periods of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments,

iv. Identification of the cement kiln operating days when the calculated rolling 30-day average NO_x emission rates are in excess of the NO_x emissions standard of the NO_x RACT Plan - Amendment 1. Kosmos shall submit excess emission reports for any excess emissions that occurred during the reporting period. This report shall include the magnitude of the excess emissions in pounds per ton of clinker produced and the date and time of the commencement and completion of each period of excess emissions as well as the nature and cause of each period of excess emissions and any corrective actions taken or preventive measures adopted,

v. Identification of the cement kiln operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken,

vi. Identification of the times when emission data have been excluded from the calculation of average emission rates, the reasons for excluding data, and description of corrective action taken,

vii. Identification of times when hourly averages have been obtained based on 40 CFR Part 60 Appendix A Method 7 or Method 7a,

viii. Identification of times which the CEMS (including all monitors) was inoperative, including the date and time and the nature of the system repairs or adjustments except for zero and span checks,

ix. Identification of the times when the pollutant concentration exceeded full span of the CEMS,

x. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with 40 CFR Part 60 Appendix B Performance Specification 2,

xi. Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR Part 60 Appendix F Procedure 1,
xii. Results of the quarterly raw materials conversion factor testing, and
xiii. Clinker production rates used to determine the pounds of NO_x per ton of clinker produced by the cement kiln.

All semi-annual reports and Summary Reports shall be postmarked by the 60th day following the end of each semi-annual period.

b. Kosmos shall submit a Summary Report with every semi-annual report. The Summary Report shall be in the format given in 40 CFR §60.7 Figure 1.

c. All records required by this NO_x RACT Plan - Amendment 1 shall be maintained by Kosmos for a period of 5 years following the date of such record.

NO_x RACT Plan Appendix B
Amendment 1
Requirements for Flow Monitors
and Additional Requirements for NO_x CEMS

1. Installation of the Flow Monitor

Install the flow monitor in a location that provides representative volumetric flow over all operating conditions. Such a location is one that provides an average velocity of the flue gas flow over the stack or duct cross section, provides a representative NO_x emission rate (in lb/ton of clinker produced by the cement kiln), and is representative of the pollutant concentration monitor location. Where the moisture content of the flue gas affects volumetric flow measurements, use the procedures in both Reference Methods 1 and 4 of 40 CFR Part 60 Appendix A to establish a proper location for the flow monitor. The District recommends (but does not require) performing a flow profile study following the procedures in 40 CFR Part 60 Appendix A Method 1 section 2.5 or 2.4 for each of the three operating or load levels indicated in section 5.b. to determine the acceptability of the potential flow monitor location and to determine the number and location of flow sampling points required to obtain a representative flow value. The procedure in 40 CFR Part 60 Appendix A Test Method 1 section 2.5 may be used even if the flow measurement location is greater than or equal to 2 equivalent stack or duct diameters downstream or greater than or equal to ½ duct diameter upstream from a flow disturbance. If a flow profile study shows that cyclonic (or swirling) or stratified flow conditions exist at the potential flow monitor location that are likely to prevent the monitor from meeting the performance specifications of this Appendix, then the District recommends either (1) selecting another location where there is no cyclonic (or swirling) or stratified flow condition or (2) eliminating the cyclonic (or swirling) or stratified flow condition by straightening the flow, e.g., by installing straightening vanes. The District also recommends selecting flow monitor locations to minimize the effects of condensation, coating, erosion, or other conditions that could adversely affect flow monitor performance.

2. Acceptability of Monitor Location

If the flow monitor is installed in a location that does not satisfy these physical criteria, but nevertheless the monitor achieves the performance specifications of this Appendix, then the location is acceptable, notwithstanding the requirements of this Appendix.

Whenever Kosmos successfully demonstrates that modifications to the exhaust duct or stack (such as installation of straightening vanes, modifications of ductwork, and the like) are necessary for the flow monitor to meet the performance specifications, the District may approve an interim alternative flow monitoring methodology and an extension to the required certification date for the flow monitor.

Where no location exists that satisfies the physical siting criteria in the previous two paragraphs, where the results of flow profile studies performed at two or more alternative flow monitor locations are unacceptable, or where installation of a flow monitor in either the stack or the ducts is demonstrated to be technically infeasible, Kosmos may petition the District for an alternative method for monitoring flow.

3. Equipment Specifications

a. Instrument Span

To the extent practicable, measure at a range such that the majority of readings obtained during normal operation are between 25 and 75 percent of full-scale range of the instrument**.** Select the full-scale range of the flow monitor so that it can accurately measure all potential volumetric flow rates at the flow monitor installation site. For this purpose, determine the span value of the flow monitor using the following procedure:

i. Determine the MPV or maximum potential flow rate (MPF) in scfh (wet basis) from velocity traverse testing.

ii. Use the highest velocity measured at or near the maximum unit operating load.

iii. Calculate the MPV in units of wet standard fpm.

iv. Then, if necessary, convert the MPV to equivalent units of flow rate (e.g., scfh or kscfh) or differential pressure (inches of water), consistent with the measurement units used for the daily calibration error test to calculate the span value.

v. Multiply the MPV (in equivalent units) by 125 percent, and round up the result to no less than 2 significant figures.

vi. Report the full-scale range setting, and calculations of the span value, MPV, and MPF to the District and include this information in the monitoring plan.

If conditions change such that the maximum potential velocity may change significantly, adjust the range to assure the continued accuracy of the flow monitor. Calculate an adjusted span using the procedures in this section. Select the full-scale range of the instrument to be greater than or equal to the adjusted span value. Record and report the new full-scale range setting, calculations of the span value, MPV, and MPF, and the adjusted span value to the District and include this information in the monitoring plan. Record and report the adjusted span and reference values as parts of the records for the calibration error test. Whenever the span value is adjusted, use reference values for the calibration error test based on the most recent adjusted span value.

Perform a calibration error test according to section 3.ii. whenever making a change to the flow monitor span or range. Recertification is required whenever making a significant change in the flow monitor's range that requires an internal modification to the monitor.

b. Design for Quality Control Testing

i. Design of the Flow Monitor

Design all the flow monitors to meet the applicable performance specifications.

ii. Calibration Error Test

Design and equip each flow monitor to allow for a daily calibration error test consisting of at least two reference values:

A) Zero to 20 % of span or an equivalent reference value (e.g., pressure pulse or electronic signal) and

B) 50 to 70 % of span. Flow monitor response, both before and after any adjustment, must be recorded.

Design each flow monitor to allow a daily calibration error test of

A) the entire flow monitoring system, from and including the probe tip (or equivalent) through and including the data acquisition and handling system, or

B) the flow monitoring system from and including the transducer through and including the data acquisition and handling system.

iii. Interference Check

A) Design and equip each flow monitor with a means to ensure that the moisture expected to occur at the monitoring location does not interfere with the proper functioning of the flow monitoring system. Design and equip each flow monitor with a means to detect, on at least a daily basis, pluggage of each sample line and sensing port, and malfunction of each resistance temperature detector (RTD), transceiver, or equivalent.

B) Design and equip each differential pressure flow monitor to provide

(1) an automatic, periodic back purging (simultaneously on both sides of the probe) or equivalent method of sufficient force and frequency to keep the probe and lines sufficiently free of obstructions on at least a daily basis to prevent velocity sensing interference, and

(2) a means for detecting leaks in the system on at least a quarterly basis (manual check is acceptable).

C) Design and equip each thermal flow monitor with a means to ensure on at least a daily basis that the probe remains sufficiently clean to prevent velocity sensing interference.

D) Design and equip each ultrasonic flow monitor with a means to ensure on at least a daily basis that the transceivers remain sufficiently clean (e.g., backpurging system) to prevent velocity sensing interference.

4. Performance Specifications

a. Calibration Error

The calibration error of flow monitors shall not exceed 3.0 % based upon the span of the instrument as calculated using Equation A-6 of 40 CFR Part 75 Appendix A.

b. Relative Accuracy for Flow

The relative accuracy of flow monitors shall not exceed 10.0 %. Where the average of the flow monitor measurements of gas velocity during one or more operating levels of the relative accuracy test audit is less than or equal to 10.0 fps, the mean value of the flow monitor velocity measurements shall not exceed ±2.0 fps of the reference

method mean value in fps wherever the relative accuracy specification above is not achieved.

5. Certification Testing

a. Flow Monitor 7-day Calibration Error Test

Measure the calibration error of each flow monitor according to the following procedures:

i. Introduce the reference signal corresponding to the values specified in section 3.ii.B) to the probe tip (or equivalent) or to the transducer.

ii. During the 7-day certification test period, conduct the calibration error test while the cement kiln is operating once each operating day (as close to 24-hour intervals as practicable). In the event that extended cement kiln outages occur after the commencement of the test, the 7 consecutive operating days need not be 7 consecutive calendar days.

iii. Record the flow monitor responses by means of the data acquisition and handling system.

iv. Calculate the calibration error using Equation A-6 of 40 CFR Part 75 Appendix A.

v. Do not perform any corrective maintenance, repair, or replacement upon the flow monitor during the 7-day certification test period other than that required for normal daily operation as specified by the monitor manufacturer or by the NO_x RACT Plan - Amendment 1.

vi. Do not make adjustments between the zero and high reference level measurements on any day during the 7-day test.

vii. If the flow monitor operates within the calibration error performance specification (i.e., less than or equal to 3 % error each day and requiring no corrective maintenance, repair, or replacement during the 7-day test period) the flow monitor passes the calibration error test portion of the certification test.

viii. Record all maintenance activities and the magnitude of any adjustments.

ix. Record output readings from the data acquisition and handling system before and after all adjustments.

x. Record and report all calibration error test results using the unadjusted flow rate measured in the calibration error test prior to resetting the calibration.

xi. Record all adjustments made during the 7-day period at the time the adjustment is made and report them in the certification application.

b. Relative Accuracy

i. Perform relative accuracy test audits for the flow monitor at three different exhaust gas velocities, expressed in terms of percent of flow monitor span, or different operating levels. Select the operating levels as follows:

A) A frequently used low operating level selected within the range between the minimum safe and stable operating level and 50 % load,

B) A frequently used high operating level selected within the range between 80 % of the maximum operating level and the maximum operating level, and

C) The normal operating level.

ii. If the normal operating level is within 10.0 % of the maximum operating level of either A) or B) above, use a level that is evenly spaced between the low and high operating levels used. The maximum operating level shall be equal to the design capacity less any physical or regulatory limitations or other deratings. Calculate flow monitor relative accuracy at each of the three operating levels. If a flow monitor fails the relative accuracy test on any of the three levels of a three-level relative accuracy test audit, the three-level relative accuracy test audit shall be repeated.

iii. If the kiln is normally operated at only one level, then it is acceptable to perform relative accuracy test audits at the normal operating level only.

c. Calculations

Using the data from the relative accuracy test audits, calculate relative accuracy in accordance with the procedures and equations specified in section VI.

d. Reference Method Measurement Location

Select a location for reference method measurements that is

i. accessible,

ii. in the same proximity as the monitor or monitoring system location, and

iii. meets the requirements of Method 1 (or 1A) in 40 CFR Part 60 Appendix A for volumetric flow, except as otherwise indicated in this section or as approved by the District.

e. Reference Method Traverse Point Selection

Select traverse points that:

i. Ensure acquisition of representative samples of flue gas flow rate over the flue cross section, and

ii. Meet the requirements of 40 CFR Part 60 Appendix A Method 1 (or 1A)(for volumetric flow).

f. Sampling Strategy

Conduct the reference method tests so they will yield results representative of the flue gas flow rate from the cement kiln and can be correlated with the flow monitor CEMS measurements. To properly correlate the volumetric flow rate data with the reference method data, mark the beginning and end of each reference method test run (including the exact time of day) on the individual chart recorder or other permanent recording device.

g. Correlation of Reference Method and Continuous Emission Monitoring System

i. Confirm that the monitor or monitoring system and reference method test results are on consistent moisture basis (e.g., since the flow monitor measures flow rate on a wet basis, Method 2 test results shall also be on a wet basis).

ii. Compare flow-monitor and reference method results on an scfh basis. Also, consider the response times of the flow monitoring system to ensure comparison of simultaneous measurements.

iii. For each relative accuracy test audit run, compare the measurements obtained from the monitor or continuous emission monitoring system against the corresponding reference method values. Tabulate the paired data in a table such as the one shown in Figure 2 of 40 CFR Part 75 Appendix A.

h. Number of Reference Method Tests

Perform a minimum of 9 sets of paired monitor (or monitoring system) and reference method test data for every required relative accuracy test. For the certification and annual quality assurance relative accuracy test audits for flow monitors, perform a minimum of 9 sets at each operating level as specified in section e.ii. Conduct each set within a period of 30 to 60 minutes.

Note: The tester may choose to perform more than 9 sets of reference method tests. If this option is chosen, the tester may reject a maximum of 3 sets of the test results as long as the total number of test results used to determine the relative accuracy or bias is greater than or equal to 9. Report all data, including the rejected data, and reference method test results.

i. Reference Methods

The following methods from 40 CFR Part 60 Appendix or their approved alternatives are the reference methods for performing relative accuracy test audits: Method 1 or 1A for siting; Method 2 (or 2A, 2C, or 2D) for velocity , and Method 4 for moisture.

6. Calculations

a. Flow Monitor Calibration Error

For each reference value, calculate the percentage calibration error based upon span using the equation A-6 as given in 40 CFR Part 75 Appendix A.

b. Relative Accuracy for Flow Monitors

Analyze the relative accuracy test audit data from the reference method test for flow monitors using the following procedures:

i. Summarize the results on a data sheet. An example is shown in Figure 3 of 40 CFR Part 75 Appendix A.

ii. Calculate the mean of the monitor or monitoring system measurement values.

iii. Calculate the mean of the reference method values.

iv. Using data from the source CEMS, calculate the arithmetic differences between the reference method and monitor measurement data sets.

v. Calculate the arithmetic mean of the difference, the standard deviation, the confidence coefficient, and the monitor or monitoring system relative accuracy

using the procedures and equations found in 40 CFR Part 75 Appendix A as is specified in the following sections.

c. Arithmetic Mean

Calculate the arithmetic mean of the differences using equation A-7 as given in 40 CFR Part 75 Appendix A.

d. Standard Deviation

Calculate the standard deviation of a data set using equation A-8 as given in 40 CFR Part 75 Appendix A.

e. Confidence Coefficient

Calculate the confidence coefficient using equation A-9 as given in 40 CFR Part 75 Appendix A.

f. Relative Accuracy

Calculate the relative accuracy of a data set using equation A-10 as given in 40 CFR Part 75 Appendix A.

7. Quality Assurance and Quality Control

a. Calibration Error Test

Perform the daily calibration error test of each flow monitoring system according to the procedure in this section.

i. Perform the daily calibration error tests on each scale that has been used since the previous calibration error test. For example, if the flow has not exceeded the low scale value (based on the maximum expected concentration) since the previous calibration error test, the calibration error test may be performed on the low scale only. If, however, the flow has exceeded the low scale span value for one hour or longer since the previous calibration error test, perform the calibration error test on both the low and high scales.

ii. All daily calibration error tests shall be performed while the unit is in operation at normal, stable conditions (i.e. "on-line").

b. Daily Flow Interference Check

Perform the daily flow monitor interference checks specified in section 3.b.iii. while the unit is in operation at normal, stable conditions.

c. Recalibration

The District recommends adjusting the calibration, at a minimum, whenever the daily calibration error exceeds the limits of the applicable performance specification for the flow monitor in section IV.

d. Out-of-Control Period

i. An out-of-control period occurs when the calibration error of a flow monitor exceeds 6.0 % based upon the span value, which is twice the applicable specification of this section. The out-of-control period begins with the hour

of completion of the failed calibration error test and ends with the hour of completion following an effective recalibration. Whenever the failed calibration, corrective action, and effective recalibration occur within the same hour, the hour is not out of control if 2 or more valid readings are obtained during that hour.

ii. An out-of-control period also occurs whenever interference of a flow monitor is identified. The out-of-control period begins with the hour of completion of the failed interference check and ends with the hour of completion of an interference check that is passed.

e. Quality Assurance of Data With Respect to Daily Assessments

When a monitoring system passes a daily assessment (i.e., daily calibration error test or daily flow interference check), data from that monitoring system are prospectively validated for 26 clock hours (i.e., 24 hours plus a 2-hour grace period) beginning with the hour in which the test is passed, unless another assessment (i.e. a daily calibration error test, an interference check of a flow monitor, or a relative accuracy test audit) is failed within the 26-hour period.

f. Data Invalidation with Respect to Daily Assessments

Data from a monitoring system are invalid beginning with the first hour following the expiration of a 26-hour data validation period.

g. Daily Assessment Start-Up Grace Period

For the purpose of quality assuring data with respect to a daily assessment (i.e. a daily flow interference check), a start-up grace period may apply when a unit begins to operate after a period of non-operation. The start-up grace period for a daily calibration error test is independent of the start-up grace period for a daily flow interference check. To qualify for a start-up grace period for a daily assessment, there are two requirements:

i. The unit must have resumed operation after being in outage for 1 or more hours (i.e., the unit must be in a start-up condition) as evidenced by a change in unit operating time from zero in one clock hour to an operating time greater than zero in the next clock hour, and

ii. For the monitoring system to be used to validate data during the grace period, the previous daily assessment of the same kind must have been passed on-line within 26 clock hours prior to the last hour in which the unit operated before the outage. In addition, the monitoring system must be in-control with respect to quarterly and semi-annual or annual assessments.

If both of the above conditions are met, then a start-up grace period of up to 8 clock hours applies, beginning with the first hour of unit operation following the outage. During the start-up grace period, data generated by the monitoring system are considered quality-assured. For each monitoring system, a start-up grace period for a calibration error test or flow interference check ends when either:

i. A daily assessment of the same kind (i.e., calibration error test or flow interference check) is performed, or

ii. 8 clock hours have elapsed (starting with the first hour of unit operation following the outage), whichever occurs first.

h. Data Recording

Record and tabulate all calibration error test data according to month, day, clock-hour, and magnitude in scfh. Program monitors that automatically adjust data to the corrected calibration values (e.g., microprocessor control) to record either:

i. The unadjusted flow rate measured in the calibration error test prior to resetting the calibration, or

ii. The magnitude of any adjustment.

Record the following applicable flow monitor interference check data:

i. Sample line/sensing port pluggage, and

ii. Malfunction of each RTD, transceiver, or equivalent.

8. Quarterly Assessments

For a differential pressure flow monitor or flow monitoring system, perform a leak check of all sample lines (a manual check is acceptable) during each unit operating quarter. This requirement is effective as of the calendar quarter following the calendar quarter in which the flow monitor or flow emission monitoring system is provisionally certified.

9. Annual Assessments

For the flow monitor, perform the relative accuracy test audit (RATA) assessment once annually (within four calendar quarters) after the calendar quarter in which the monitor or monitoring system was last tested, as specified below for the type of test and the performance achieved. This requirement is effective as of the calendar quarter following the calendar quarter in which the monitor or continuous monitoring system is provisionally certified.

a. Relative Accuracy Test Audit (RATA)

Perform relative accuracy test audits annually and, to the extent practicable, no less than 4 months apart for the flow monitor. The three-level audit shall be performed at the three different operating or load levels specified in V.B.

b. Out-of-Control Period

An out-of-control period occurs under any of the following condition : the relative accuracy of a flow monitor exceeds 10.0 %, for low flow situations (£10.0 fps) or the flow monitor mean value (if applicable) exceeds ±2.0 fps of the reference method mean whenever the relative accuracy is greater than 15.0 %. For a flow relative accuracy test audit at 3 operating levels, the out-of-control period begins with the hour of completion of the first failed relative accuracy test audit at any of the three operating levels, and ends with the hour of completion of a satisfactory three-level relative accuracy test audit.

10. Other Audits

Affected units may be subject to relative accuracy test audits at any time. If a monitor or continuous emission monitoring system fails the relative accuracy test during the audit, the monitor or continuous emission monitoring system shall be considered to be out-of-control

beginning with the date and time of completion of the audit, and continuing until a successful audit test is completed following corrective action.

11. Span Determination for the NO_x Monitor

a. To the extent practicable, measure the NO_x emissions at a range such that the majority of readings obtained during normal operation are between 25 and 75 % of full-scale range of the instrument.

b. Maximum Potential Concentration

i. The monitor must be capable of accurately measuring up to 125 % of the maximum potential concentration (MPC) as determined below in this section. To determine the maximum potential concentration, Kosmos may use NO_x emission test results or historical fully quality assured CEMS data over the previous 30 unit operating days. Multiply the MPC by 125 % and round up to the nearest multiple of 100 ppm to determine the span value. The span value shall be used to determine the concentrations of the calibration gases.

ii. Report the full-scale range setting and calculations of the MPC, maximum potential NO_x emission rate, and span to the District and record them in the monitoring plan. Select the full-scale range of the instrument to be consistent with section 11.a, and to be greater than or equal to the span value. This selected monitor range with a span rounded up from 125 % of the maximum potential concentration shall be the "high scale" of the NO_x pollutant concentration monitor.

iii. If NO_x emission testing is used to determine the maximum potential NO_x concentration, use the following guidelines:

A) Use Method 7E from 40 CFR Part 60 Appendix A to measure total NO_x concentration.

B) Operate the unit at the minimum safe and stable production level, the normal production level, and the maximum production level. If the normal load and maximum load are identical, an intermediate level need not be tested.

C) Operate at the highest excess O_2 level expected under normal operating conditions.

D) Make at least 3 runs with 3 traverse points of at least 20 minutes duration at each operating condition.

E) Select the highest NO_x concentration from all measured values as the maximum potential concentration for NO_x. If historical CEM data are used to determine the MPC, the data must represent various operating conditions, including the minimum safe and stable production level, normal production level, and production level load.

F) Calculate the MPC and span using the highest hourly NO_x concentration in ppm.

c. Maximum Expected Concentration

i. If the majority of NO_x concentrations are expected to be less than 25 % of the full-scale range of the instrument selected under section 11.b, use a "low scale" measurement range.

ii. Calculate the span for the additional (lower) range by multiplying the maximum expected concentration by 125 % and by rounding up the resultant concentration to the nearest multiple of 10 ppm. The span value of this additional (lower) range shall also be used to determine the concentrations of the calibration gases.

iii. Include the full-scale range setting and calculations of the MEC and span and report these to the District and record them in the monitoring plan.

iv. Select the full scale range of the instrument to be consistent with section XI.A., and to be greater or equal to the lower range span value. This selected monitor range with a span rounded up from 125 % of the maximum expected concentration is the "low scale" of NO_x pollutant concentration monitors.

d. Auto-ranging monitors

For monitors that can continuously and automatically adjust their range of measurement, the monitor shall be capable at any time of accurately measuring up to 125 % of the maximum potential concentration as defined in section 11.ii. Define the span value for an auto-ranging monitor as 125 % of the maximum potential concentration and 125 % of the maximum expected concentration if a second span is determined to be necessary under section 11.iii. Determine concentrations of the calibration gases based upon the span value.

e. Adjustment of Span

i. Whenever the fuel supply, emission controls, or other process parameters change such that the maximum expected concentration or the maximum potential concentration may change significantly, adjust the NO_x pollutant concentration span and monitor range to assure the continued accuracy of the monitoring system. Determine the adjusted span value using the procedures in sections 11.ii. or 11.iii. Select the new full scale range of the instrument to be greater than or equal to the adjusted span value and to be consistent with the guidelines of section 11.i.

ii. Record and report the new full-scale range setting, calculations of the span value, MPC, and MEC (if appropriate), maximum potential NO_x emission rate and the adjusted span value to the District and record them in the monitoring plan. In addition, record and report the adjusted span as part of the records for the daily calibration error test and linearity check.

iii. Whenever the span value is adjusted, use calibration gas concentrations based on the most recent adjusted span value. Perform a cylinder gas audit (CGA) according to 40 CFR Part 60 Appendix F whenever making a change to the monitor span or range. Recertification is required whenever a significant change is made in the monitor's range that requires an internal modification to the monitor (e.g., a change of measurement cell length).

12. Data Acquisition and Handling Systems

Automated data acquisition and handling systems shall meet the following requirements:

a. Read and record the full range of potential NO_x emission concentrations and volumetric flow from zero through span, raw materials input rates to the cement kiln, and flow (if used),

b. Provide a continuous, permanent record of all measurements and required information as an ASCII flat file capable of transmission via an IBM-compatible personal computer diskette or other electronic media,

c. Interpret and convert the individual output signals from a flow monitor (if used) and a NO_x CEMS to produce a continuous readout of pollutant mass emission rates in the units of pounds NO_x per ton of clinker produced by the cement kiln,

d. Calculate and record intermediate values necessary to obtain emissions rates such as NO_x concentration, raw materials input to the cement kiln, and flow (if used), and

e. Calculate and record emissions in units of the standard (pounds NO_x per ton of clinker produced by the cement kiln).

13. Data Preparation

If the NO_x concentration is in ppm, multiply it by 1.194×10^{-7} (lb/dscf)/ppm to convert it to units of lb/dscf. If the NO_x concentration is in mg/dscm, multiply it by 6.24×10^{-8} (lb/dscf)/(mg/dscm) to convert it to lb/dscf. Then, use the appropriate gas flow rate and clinker production rate to calculate the emissions in terms of pounds NO_x per ton of clinker produced by multiplying lb/dscf by the appropriate dscf and dividing by the appropriate tons of clinker production rate from the cement kiln.

14. NO_x Emission Rate (Monitoring System)

For each test run in a data set, calculate the average NO_x emission rate (in lb per ton of clinker produced), by means of the data acquisition and handling system, during the time period of the test run. Tabulate the results as shown in 40 CFR Part 75 Appendix A Figure 4 (replace lb/mmBtu with lb/tons of clinker produced by the cement kiln).

15. Relative Accuracy

Use the equations and procedures in 40 CFR Part 60 Appendix B Specification 2 to calculate the relative accuracy for the NO_x CEMS. In using Equation 2-1, "d" is, for each run, the difference between the NO_x emission rate values (in lb per ton of clinker produced by the cement kiln) obtained from the reference method data and the NO_x CEMS.

16. Quality Assurance and Quality Control Procedures

Quality Control Program

Develop and implement a quality control program for the continuous emission monitoring systems and their components. As a minimum, include in each quality control program a written plan that describes in detail complete, step-by-step procedures and operations for each of the following activities:

a. Calibration Error Test and Linearity Check Procedures. Identify calibration error test and linearity check procedures specific to the CEMS that may require variance from the procedures in this NO_x RACT Plan - Amendment 1.

b. Calibration and Linearity Adjustments. Explain how each component of the CEMS will be adjusted to provide correct responses to calibration gases, reference values, and/or indications of interference both initially and after repairs or corrective action. Identify equations, conversion factors, assumed moisture content, and other factors affecting calibration of each CEMS.

c. Preventive Maintenance. Keep a written record of procedures, including those specified by the manufacturers, needed to maintain the CEMS in proper operating condition and a schedule for those procedures. Include provisions for maintaining an inventory of spare parts.

d. Audit Procedures. Keep a written record of procedures and details peculiar to the installed CEMS that are to be used for relative accuracy test audits, such as sampling and analysis methods.

e. Record keeping and Reporting. Keep a written record describing procedures that will be used to implement the record keeping and reporting requirements.

PERMIT SHIELD

The owner or operator is hereby granted a permit shield that shall apply as long as the owner or operator demonstrates ongoing compliance with all the conditions of this permit. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements of the regulations cited in this permit as of the date of issuance per Regulation 2.16, section 4.6.1.1.

OFF-PERMIT DOCUMENTS

There are no Off-Permit Documents associated with the issuance of this permit.

ALTERNATIVE OPERATING SCENARIO

The company requested no alternative operating scenario in its Title V application.

Insignificant Activities		
Description	**Quantity**	**Basis**
Internal combustion engines fixed or mobile	1	Reg 2.02, sec 2.2
Brazing, soldering or welding operation	1	Reg 2.02, sec 2.3.4
500 Kw Emergency Generator	1	< 100 hr annual operation
Unpaved Haul Roads	various	No regulatory authority
Outdoor Storage Piles, coal, gypsum, ash, etc.	various	No regulatory authority
Combustion Source <10 MMBtu, #2 fuel oil	1	Reg 2.02, sec 2.1.1
Diesel/fuel oil storage tanks, 3-10,000 gallon, 1-500 gallon capacity	1	Reg 2.02, sec 2.3.23
Used (waste) oil storage tank - 500 gallon capacity	1	Reg 2.02, sec 2.3.23

A. Insignificant Activities are only those activities or processes falling into the general categories defined in Regulation 2.02, Section 2, and not associated with a specific operation or process for which there is a specific regulation. Equipment associated with a specific operation or process (Emission Unit) shall be listed with the specific

process even though there may be no applicable requirements. Information contained in the permit and permit summary shall clearly indicate that those items identified with negligible emissions have no applicable requirements.

B. Activities identified In Regulation 2.02, Section 2, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the Title V permit.

i. No facility, having been designated as an insignificant activity, shall be exempt from any generally applicable requirements which shall include a 20% opacity limit for facilities not otherwise regulated.

ii. No periodic monitoring shall be required for facilities designated as insignificant activities.